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Journal of Bangladesh College of Physicians and Surgeons (JBCPS)

INFORMATION FOR AUTHORS

MANUSCRIPT PREPARATION AND SUBMISSION

Guide to Authors

The Journal of Bangladesh College of Physician and Surgeons, provides rapid publication (quarterly publication) of articles in all areas of the subject. The Journal welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence.

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The **cover letter** should include the corresponding author's full address and telephone/fax numbers and should be in an e-mail message sent to the editor, with the file, whose name should begin with the first author's surname, as an attachment.

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Article Types

FIve types of manuscripts may be submitted:

Editorials: It will be preferably written invited only and usually covers a single topic of contemporary interest.

Original Articles: These should describe new and carefully confirmed findings, and experimental procedures should be given in sufficient detail for others to verify the work. The length of a full paper should be the minimum required to describe and interpret the work clearly.

Short Communications: A Short Communication is suitable for recording the results of complete small investigations or giving details of new models or hypotheses, innovative methods, techniques , images in clinical practice, letter to editors, short reports or apparatus. The style of main sections need not conform to that of original article . Short communications are 2 to 4 printed pages (about 6 to 12 manuscript pages) in length.

Reviews: Submissions of reviews and perspectives covering topics of current interest are welcome and encouraged. Reviews should be concise and no longer than 4 to 6 printed pages (about 12 to 18 manuscript pages). It should be focused and must be up to date. Reviews are also peer-reviewed.

Case Reports: This should cover uncommon and/or interesting cases with appropriate confirmation process.

Review Process:

All manuscripts are initially screened by editor and sent to selective reviewer. Decisions will be made as

rapidly as possible, and the journal strives to return reviewers' comments to authors within 3 weeks. The editorial board will re-review manuscripts that are accepted pending revision. The JBCPS editorial board will try to publish the manuscript as early as possible fulfilling all the rigorous standard journal needs.

I. A. Preparing a Manuscript for Submission to JBCPS

Editors and reviewers spend many hours reading manuscripts, and therefore appreciate receiving manuscripts that are easy to read and edit. Much of the information in this journal's Instructions to Authors is designed to accomplish that goal in ways that meet each journal's particular editorial needs. The following information provides guidance in preparing manuscripts for this journal.

Conditions for submission of manuscript:

- All manuscripts are subject to peer-review.
- Manuscripts are received with the explicit understanding that they are not under simultaneous consideration by any other publication.
- Submission of a manuscript for publication implies the transfer of the copyright from the author to the publisher upon acceptance. Accepted manuscripts become the permanent property of the Journal of Bangladesh College of Physicians and Surgeons and may not be reproduced by any means in whole or in part without the written consent of the publisher.
- It is the author's responsibility to obtain permission to reproduce illustrations, tables etc. from other publications.

Ethical aspects:

- Ethical aspect of the study will be very carefully considered at the time of assessment of the manuscript.
- Any manuscript that includes table, illustration or photograph that have been published earlier should accompany a letter of permission for re-publication from the author(s) of the publication and editor/ publisher of the Journal where it was published earlier.
- Permission of the patients and/or their families to reproduce photographs of the patients where identity is not disguised should be sent with the manuscript. Otherwise the identity will be blackened out.

Preparation of manuscript:

Criteria: Information provided in the manuscript are important and likely to be of interest to an international readership.

Preparation:

1. Manuscript should be written in English and typed on one side of A4 (290 x 210cm) size white paper.
2. Margin should be 5 cm for the header and 2.5 cm for the remainder.
3. Style should be that of modified Vancouver.
4. Each of the following section should begin on separate page :
   - o Title page
   - o Summary/abstract
   - o Text
   - o Acknowledgement
   - o References
   - o Tables and legends.

Pages should be numbered consecutively at the upper right hand corner of each page beginning with the title page

I. A. 1. a. General Principles

- The text of observational and experimental articles is usually (but not necessarily) divided into the following sections: Introduction, Methods, Results, and Discussion. This so-called "IMRAD" structure is a direct reflection of the process of scientific discovery.
- Long articles may need subheadings within some sections (especially Results and Discussion) to clarify their content. Other types of articles, such as case reports, reviews, and editorials, probably need to be formatted differently.
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- Authors need to work closely with editors in developing or using such new publication formats and should submit supplementary electronic material for peer review.
- Double-spacing all portions of the manuscript—including the title page, abstract, text, acknowledgments, references, individual tables, and

legends—and generous margins make it possible for editors and reviewers to edit the text line by line and add comments and queries directly on the paper copy.

- If manuscripts are submitted electronically, the files should be double-spaced to facilitate printing for reviewing and editing.
- Authors should number on right upper all of the pages of the manuscript consecutively, beginning with the title page, to facilitate the editorial process.

I. A. 1. b. Reporting Guidelines for Specific Study Designs

Research reports frequently omit important information. Reporting guidelines have been developed for a number of study designs that JBCPS journals ask authors to follow. Authors should consult the Information for Authors of this journal. The general requirements listed in the next section relate to reporting essential elements for all study designs. Authors are encouraged also to consult reporting guidelines relevant to their specific research design. A good source of reporting guidelines is the EQUATOR Network (http: //www.equator-network.org/home/) or CONSORT network (http:// www.consort-statement.org).

I. A .2. Title Page

The title page should have the following information:

1. Article title. Concise titles are easier to read than long, convoluted ones. Titles that are too short may, however, lack important information, such as study design (which is particularly important in identifying type of trials). Authors should include all information in the title that will make electronic retrieval of the article both sensitive and specific.
2. Authors' names and institutional affiliations.
3. The name of the department(s) and institution(s) to which the work should be attributed.
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9. The number of figures and tables. It is difficult for editorial staff and reviewers to determine whether he figures and tables that should have accompanied a manuscript were actually included unless the numbers of figures and tables are noted on the title page.

I. A. 3. Conflict-of-Interest Notification Page

To prevent potential conflicts of interest from being overlooked or misplaced, this information needs to be part of the manuscript. The ICMJE has developed a uniform disclosure form for use by ICMJE member journals (http://www.icmje.org/coi_disclosure.pdf) and JBCPS has accepted that.

I. A. 4. Abstract

- Structured abstracts are essential for original research and systematic reviews. structured abstract means introduction, methods, results and conclusion in abstract
- Should be limited to 250 words
- The abstract should provide the introduction of the study and blinded state and should state the study's purpose, basic procedures (selection of study subjects or laboratory animals, observational and analytical methods), main findings (giving specific effect sizes and their statistical significance, if possible), principal conclusions. It should emphasize new and important aspects of the study or observations. Articles on clinical trials should contain abstracts that include the items that the CONSORT group has identified as essential (http:// www.consort-statement.org).
- Because abstracts are the only substantive portion of the article indexed in many electronic databases, and the only portion many readers read, authors need to be careful that they accurately reflect the content of the article

I. A. 5. Introduction

- Provide a context or background for the study (that is, the nature of the problem and its significance). It should be very specific, identify the specify knowledge in the aspect, reasoning and what the study aim to answer.
- State the specific purpose or research objective of, or hypothesis tested by, the study or observation; the research objective is often more sharply focused when stated as a question.
- Both the main and secondary objectives should be clear.
- Provide only directly pertinent primary references, and do not include data or conclusions from the work being reported.

I. A. 6. Methods

The Methods section should be written in such way that another researcher can replicate the study.

I. A. 6. a. Selection and Description of Participants

- Describe your selection of the observational or experimental participants (patients or laboratory animals, including controls) clearly, including eligibility and exclusion criteria and a description of the source population. Because the relevance of such variables as age and sex to the object of research is not always clear, authors should explain their use when they are included in a study report—for example, authors should explain why only participants of certain ages were included or why women were excluded. The guiding principle should be clarity about how and why a study was done in a particular way. When authors use such variables as race or ethnicity, they should define how they measured these variables and justify their relevance.

I. A. 6. b. Technical Information

- Identify the methods, apparatus (give the manufacturer's name and address in parentheses), and procedures insufficient detail to allow others to reproduce the results. Give references to established methods, including statistical methods (see below); provide references and brief descriptions for methods that have been published but are not well-known; describe new or substantially modified methods, give the reasons for using them, and evaluate their limitations. Identify precisely all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration.
- Authors submitting review article should include a section describing the methods used for locating, selecting, extracting, and synthesizing data. These methods should also be summarized in the abstract.

I. A. 6. c. Statistics

- Describe statistical methods with enough detail to enable a knowledgeable reader with access to the original data to verify the reported results. When possible, quantify findings and present them with appropriate indicators of measurement error or uncertainty (such as confidence intervals).
- Avoid relying solely on statistical hypothesis testing, such as *P* values, which fail to convey important information about effect size. References for the design of the study and statistical methods should be to standard works when possible (with pages stated).
- Define statistical terms, abbreviations, and most symbols.
- Specify the computer software used.

I. A. 7. Results

- Present results in logical sequence in the text, tables, and illustrations, giving the main or most important findings first. Please keep the result the sequence of specific objective selected earlier.
- Do not repeat all the data in the tables or illustrations in the text; emphasize or summarize only the most important observations. Extra or supplementary materials and technical detail can be placed in an appendix where they will be accessible but will not interrupt the flow of the text, or they can be published solely in the electronic version of the journal.
- When data are summarized in the Results section, give numeric results not only as derivatives (for example, percentages) but also as the absolute numbers from which the derivatives were calculated, and specify the statistical methods used to analyze them.
- Restrict tables and figures to those needed to explain the argument of the paper and to assess supporting data. Use graphs as an alternative to tables with many entries; do not duplicate data in graphs and tables.

- Avoid nontechnical uses of technical terms in statistics, such as “random” (which implies a randomizing device), “normal,” “significant,” “correlations,” and “sample.” Where scientifically appropriate, analyses of the data by such variables as age and sex should be included.

I. A. 8. Discussion

- Emphasize the new and important aspects of the study and the conclusions that follow from them in the context of the totality of the best available evidence.
- Do not repeat in detail data or other information given in the Introduction or the Results section.
- For experimental studies, it is useful to begin the discussion by briefly summarizing the main findings, then explore possible mechanisms or explanations for these findings, compare and contrast the results with other relevant studies, state the limitations of the study, and explore the implications of the findings for future research and for clinical practice.
- Link the conclusions with the goals of the study but avoid unqualified statements and conclusions not adequately supported by the data. In particular, avoid making statements on economic benefits and costs unless the manuscript includes the appropriate economic data and analyses. Avoid claiming priority or alluding to work that has not been completed. State new hypotheses when warranted, but label them clearly as such.

I. A. 9. References

I. A. 9. a. General Considerations Related to References

- Although references to review articles can be an efficient way to guide readers to a body of literature, review articles do not always reflect original work accurately. Readers should therefore be provided with direct references to original research sources whenever possible.
- On the other hand, extensive lists of references to original work of a topic can use excessive space on the printed page. Small numbers of references to key original papers often serve as well as more exhaustive lists, particularly since references can now be added to the electronic version of published papers, and since electronic literature searching allows readers to retrieve published literature efficiently.
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- Authors are responsible for checking that none of the references cite retracted articles except in the context of referring to the retraction. For articles published in journals indexed in MEDLINE, the ICMJE considers PubMed the authoritative source for information about retractions.

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- References should be numbered consecutively in the order in which they are first mentioned in the text.
- Identify references in text, tables, and legends by Arabic numerals in superscript.
- References cited only in tables or figure legends should be numbered in accordance with the sequence established by the first identification in the text of the particular table or figure.

I. A. 10. Tables

- Tables capture information concisely and display it efficiently.

- Use tables /fig that are relevant to study
- Try to limit the number of tables/figure
- Type or print each table with double-spacing on a separate sheet of paper. Number tables consecutively in the order of their first citation in the text and supply a brief title for each.
- Do not use internal horizontal or vertical lines. Give each column a short or an abbreviated heading. Authors should place explanatory matter in footnotes, not in the heading. Explain all nonstandard abbreviations in footnotes, and use the following symbols, in sequence:

  *, †, ‡, §, _, ¶, **, ††, ‡‡, §§, _ _, ¶¶, etc.
- Identify statistical measures of variations, such as standard deviation and standard error of the mean.
- Be sure that each table is cited in the text. If you use data from another published or unpublished source, obtain permission and acknowledge that source fully.

I. A. 11. Illustrations (Figures)

- Figures should be either professionally drawn and photographed, or submitted as photographic-quality digital prints. In addition to requiring a version of the figures suitable for printing,

  (for example, JPEG / GIF)
- Authors should review the images of such files on a computer screen before submitting them to be sure they meet their own quality standards. For x-ray films, scans, and other diagnostic images, as well as pictures of pathology specimens or photomicrographs, send sharp, glossy, black-and-white or color photographic prints, usually 127 _ 173 mm (5 _ 7 inches)
- Letters, numbers, and symbols on figures should therefore be clear and consistent throughout, and large enough to remain legible when the figure is reduced for publication.
- Photographs of potentially identifiable people must be accompanied by written permission to use the photograph. Figures should be numbered consecutively according to the order in which they have been cited in the text.
- If a figure has been published previously, acknowledge the original source and submit written permission from the copyright holder to reproduce the figure. Permission is required irrespective of authorship or publisher except for documents in the public domain.
- For illustrations in color, JBCPS accept coloured illustration but when it seems essential. This Journal publish illustrations in color only if the author pays the additional cost. Authors should consult the journal about requirements for figures submitted in electronic formats.

I. A. 12. Legends for Illustrations (Figures)

- Type or print out legends for illustrations using double spacing, starting on a separate page, with Arabic numerals corresponding to the illustrations.
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- Measurements of length, height, weight, and volume should be reported in metric units (meter, kilogram, or liter) or their decimal multiples.
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- Drug concentrations may be reported in either SI or mass units, but the alternative should be provided in parentheses where appropriate.

I. A. 14. Abbreviations and Symbols

- Use only standard abbreviations; use of nonstandard abbreviations can be confusing to readers.
- Avoid abbreviations in the title of the manuscript.
- The spelled-out abbreviation followed by the abbreviation in parenthesis should be used on first mention unless the abbreviation is a standard unit of measurement.

I. B. Sending the Manuscript to the Journal

- If a paper version of the manuscript is submitted, send the required number of copies of the manuscript and figures; they are all needed for peer review and editing, and the editorial office staff cannot be expected to make the required copies.
- Manuscripts must be accompanied by a cover letter, conflicts of interest form, authorship and declaration, proforma of which is available in JBCPS web site.

Editing and peer review: All submitted manuscripts are subject to scrutiny by the Editor in-chief or any member of the Editorial Board. Manuscripts containing materials without sufficient scientific value and of a priority issue, or not fulfilling the requirement for publication may be rejected or it may be sent back to the author(s) for resubmission with necessary modifications to suit one of the submission categories. Manuscripts fulfilling the requirements and found suitable for consideration are sent for peer review. Submissions, found suitable for publication by the reviewer, may need revision/ modifications before being finally accepted. Editorial Board finally decides upon the publishability of the reviewed and revised/modified submission. Proof of accepted manuscript may be sent to the authors, and should be corrected and returned to the editorial office within one week. No addition to the manuscript at this stage will be accepted. All accepted manuscripts are edited according to the Journal's style.

Submission Preparation Checklist

As part of the submission process, authors are required to check off their submission's compliance with all of the following items, and submissions may be returned to authors that do not adhere to these guidelines.

Check Lists

Final checklists before you submit your revised article for the possible publication in the Journal of Bangladesh College of Physicians and Surgeons:

1. Forwarding/Cover letter and declaration form
2. Authorship and conflicts of interest form
3. Manuscript
    - o Sample of the above documents is available in the following links: http://www.bcpsbd.org (registration required for download)
    - o If you have submitted mention document (1, 2, 3) above, when you first submitted your article then you don't need to re-submit but if there is change in the authorship or related then you have to re-submit it.

- General outline for article presentation and format
    - Δ Double spacing
    - Δ Font size should be 12 in arial
    - Δ Margins 5 cm from above and 2.5 cm from rest sides.
    - Δ Title page contains all the desired information (vide supra)
    - Δ Running title provided (not more than 40 characters)
    - Δ Headings in title case (not ALL CAPITALS, not underlined)
    - Δ References cited in superscript in the text without brackets after with/without comma (,) or full stop (.)
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    - Δ Numerals from 1 to 10 spelt out
    - Δ Numerals at the beginning of the sentence spelt out
- **Tables and figures**
    - Δ No repetition of data in tables/graphs and in text
    - Δ Actual numbers from which graphs drawn, provided
    - Δ Figures necessary and of good quality (colour)
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    - Δ Patients' privacy maintained (if not, written permission enclosed)
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Manuscript Format for Research Article

- **Title**
    - Δ Complete title of your article
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    - Δ Mention conflict of interest if any

- **Abstract**
  - Δ Do not use subheadings in the abstract
  - Δ Give full title of the manuscript in the Abstract page
  - Δ Not more than 200 words for case reports and 250 words for original articles
  - Δ Structured abstract (Including introduction, methods, results and discussion, conclusion) provided for an original article and (Introduction, results and discussion , conclusion) for case reports.
  - Δ Key words provided – arrange them in alphabetical order (three – five)
- **Introduction**
  - Δ Word limit 150 -200 words
  - Δ Pertinent information only
- **Material and Methods**
  - Δ Study Design
  - Δ Duration and place of study
  - Δ Ethical approval
  - Δ Patient consent
  - Δ Statistical analysis and software used.
- **Result**
  - Δ Clearly present the data
  - Δ Avoid data redundancy
  - Δ Use table information at the end of the sentence before full stop between the small bracket
- **Discussion**
  - Δ Avoid unnecessary explanation of someone else work unless it is very relevant to the study
  - Δ Provide and discuss with the literatures to support the study
  - Δ Mention about limitation of your study
- **Conclusion**
  - Δ Give your conclusion
  - Δ Any recommendation
- **Acknowledgement**
  - Δ Acknowledge any person or institute who have helped for the study
- **Reference**
  - Δ Abide by the Vancouver style
  - Δ Use reference at the end of the sentence after the full stop with superscript
- **Legends**
  - Δ Table
  - Δ Figures

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CONTENTS

EDITORIAL

Elimination of Hepatitis B: A Dream or Reality !

After its inception in medical knowledge in 1965, in the name of so called Australian antigen, Hepatitis B, during the last half century, plagued not only the Gastroenterologists or Hepatologists but also attained such a height of importance that, it became a matter of great concern for all medical professionals and general population because of its associated potentially relentless progressive nature which may lead to disabling morbidity and mortality[1].

This heralded an era of scientific endeavor for hepatitis B virus (HBV) research which successfully characterized this member of Hepandaviridae family and its multiple genotypes along with their geographic distribution throughout the globe. Researches also could uncover its different parenteral and mucosal routes of transmission and immunotolernt, immuo-reactive, low replicating stage and reactive phases of pathophysiology and their respective clinical significance. Tools for diagnosis and surveillance, medications, though not yet for cure but for suppression to non-injurious level (virtual cure) are available. Above all, effective vaccine against this virus is invented; even then, this infection could not be eliminated; nor even be reduced to a reasonably satisfactory level.

This is blamed to be due to widely variable global prevalence of Hepatitis B in countries, unequal economic and infrastructural facilities to address the problem; cost with variable effectively and availability and compliance of drugs are considered to be responsible. Ineffective and not totally scientific use of vaccination of WHO program [2, 3] are responsible for being unable to prevent acquisition of new infection both in adults and children.

Universal practice of antiseptic measures in all medical-surgical procedures, screening of blood and its products before transfusion, safe sexual practice especially with unknown partners and development of consciousness against practice of intravenous and other drug uses through different media have been proved effective in reducing horizontal transmission from 33% -10%[4].

During the last two decades, seven drugs: two formulations of interferon (IFN): conventional and pegylated (PegIFN) and five nucleos(t)ide analogues (NUCs): lamivudine, telbivudine, entecavir, adefovir, and tenofovir, have been approved for the treatment of hepatitis B. One year treatment with PegIFN in HBeAg-positive patients resulted in 29% to 32% HBeAg seroconversion and 3% to 7% HBsAg loss 24 weeks after completion of treatment[5]. Durable HBeAg loss in 81% of patients and 30% HBsAg loss was found after 3.5 years of completion of medications. Treatment with PegIFN in HBeAg-negative patients, also showed normalization of ALT level, reduction of HBV-DNA bellow <10,000IU/ml in 25% cases durng 1-year and HBsAg loss in 9% cases during 3 year follow up. These drugs are proven effective to suppress HBV replication, normalize aminotransferase (ALT) and also to reduce hepatic inflammation. Their use also have been reported to have reduced the extent of hepatic fibrosis and reversion of cirrhosis.

Orally administered anti-viral NUCs, though need to be continued almost for whole life, became the mainstay of treatment for Hepatitis B because of their potent antiviral activity, minimum side effects and strong barrier to resistance especially with the newer generations entacavir(1.2%) and tenofovir(0%)[5]. Continued treatment with entecavir or tenofovir for up to 5 years resulted in undetectable serum HBV DNA levels in 94% to 98% of patients, HBeAg seroconversion in 40% to 41%, and HBsAg loss in 3% to10% and in 74% cases fibrosis and cirrhosis were reported to have reversed [6,7].

The final goal of treatment of CHB is eradication of HBV to prevent further hepatic damage and regeneration of liver tissues. But because of persistence inhabitance of ccc-DNA of HBV in the hepatocytes after acquisition of chronic stage of infection, it enjoys a safe shelter from being attacked by all currently available anti-HBV drugs. So, presently eradication of DNA is not a realistic goal and HBsAg loss is considered 'functional cure' as it is associated with normal ALT, negative HBeAg and

DNA level <2000IU/ml. This is achieved only in a few percent of cases. A multi-prong approach with antiviral drugs targeting different steps of HBV replication cycle including eradication or silencing cccDNA combined with immunotherapy to restore immune responsiveness to HBV will be needed for patient to remain in a state of "functional cure".

Vaccination, like many other diseases, in susceptible individual against HBV is superior to treatment and interrupting the routes of transmission, as a strategy to fight HBV[8]. Because targeted populations at risk of HBV infection were not easy to access, the approach with universal vaccination to all newborns was considered cost-effective strategy [9–11], so the WHO recommended and adopted the Hepatitis B vaccine to incorporate into Expanded Program on Immunization (EPI) and as of 2012, 183 of the 193 of its member countries already have initiated it. In the face of heavy HBV burden, Taiwan launched a National Hepatitis B vaccination program in 1984. The 30-year experience of this program is an invaluable reference for the rest of the world [12]. Ninety percent reduction of HBsAg carriage among the vaccinated cohort, 32% diminution of fulminant hepatitis in infants, and almost none over one year child were notable observation, acute hepatitis due to HBV were also decreased [13]. Eighty percent HCC and >90% of its related death were declined among Taiwanese younger than 30 years of age [14]. Similar results were reported from Singapore, China, Thailand, Korea, Japan, and Alaska. It is to be noted that, in spite of universal HBV immunization, infants born to HBeAg positive carrier mothers with a viral loads of >7$\log_{10}$ and >9$\log_{10}$ may acquire HBV in 10% and 30% cases respectively.

A number of successful measures against Hepatitis B, including universal practice of antisepsis, development of effective drugs to treat chronic cases and incorporation of HBV vaccine in 94 percent countries have been taken, even then elimination of this virus is still in a critical juncture to the medic science and clinical practice. This is because, three-quarters of the affected people do not know they are infected[15]; screening uptake and diagnosis rates are low. Treatment uptake, compliance to drugs and follow up to monitor progress are low which result sub-optimal cure and burgeoning liver cancer[16]. So the challenge is to develop and implement actions plan to reduce this gap at every level in all countries.

Though most Hepatitis B infected individuals have indolent clinical character for many years, they have lifetime potentially to develop cirrhosis in 13-40 percent of cases with an annual rate of 1.2 percent. A good number of them progress to Hepatocellular carcinoma. So early diagnosis of this virally infected individual with appropriate tools of investigation, closed surveillance and put them on effective antiviral drugs with regular monitoring to see the response and complications of medicine have been strongly emphasized. In this regard, WHO have advocated developing a national plan with the involvement of people from all sectors of the community including representatives from affected groups, different media, NGOs and philanthropists; government and healthcare provider are to play role as stakeholders. Seventeen countries have already adopted this into action and are getting benefits as per[17]. Immunization through universal vaccinations will have to be more meticulous along with inclusion of a monovalent birth dose ([18]) and vaccination of vulnerable adults especially in HBV endemic countries.

With ensured all above mentioned groups and facilities to work together, a world free from Hepatitis B is not a dream but a practicability.

(J Banagladesh Coll Phys Surg 2015; 33: 187-189)

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Anterior Tooth Discrepancy in Different Bangladeshi Malocclusion Group at BSMMU

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Summary:

Anterior tooth discrepancy, an important clinical orthodontic tool to manage malocclusions, may vary on different race, ethnicity and gender. Therefore this study on anterior tooth discrepancy of Bangladeshi malocclusion groups were formulated to calculate and set up a standard norm, and to evaluate the gender discrepancy. A cross sectional type study was done among 207 pretreated dental casts (60 male, 147 female) of malocclusion patient at the Department of Orthodontics, Faculty of Dentistry, BSMMU, Bangladesh. Bolton anterior ratio were measured and compared statistically (in the Angle's group of malocclusion). No significant anterior discrepancy was observed between Bangladeshi male and female groups. A similar value for anterior discrepancy was observed in neighboring countries.

Key words: Anterior tooth discrepancy, Malocclusion.

(J Banagladesh Coll Phys Surg 2015; 33: 191-194)

Introductions:

The successful finishing of orthodontic treatment and post-treatment stability of dental occlusion treated with orthodontic management greatly depends on pre-treatment tooth size discrepancy of individual occlusion[1]. Tooth discrepancy is defined as a disproportion among the mesio-distal widths of the maxillary and mandibular teeth of individuals[2]. To determine the possible functional and aesthetic extent of treatment, an orthodontist usually considers the proportional relationship between the maxillary and mandibular tooth sizes as an important index. Without the proper mesio-distal tooth size ratio between the maxillary and mandibular teeth, correct co-ordination of arches with orthodontic treatment would be difficult[3]. Differences in tooth size have been associated with different ethnic backgrounds and occlusion status[4]. Several methods have been described to measure the inter-arch tooth size disproportion[5,6], However Bolton's analysis[6] is one of the most popular methods for determining tooth size abnormality. It is useful in aiding diagnosis as well as treatment planning. Clinically, Bolton's ratios have been used to determine the need for reduction of tooth size via inter-proximal stripping or for the addition of tooth size via prosthetic restoration.

Several studies have been conducted around the world to establish the national and ethnic norm. However only two study have been reported among Bangladeshi population comparing the normal occlusion with malocclusion[1]. Hence this study was undertaken in a tertiary level of Hospital at the department of Orthodontics, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, where sample malocclusion group were larger to ensure a more specific norm representing the Bangladeshi population with few goals. Firstly, determining the sexual dimorphism of tooth size discrepancy. Secondly, investigating the co-relation between anterior tooth size discrepancies and angle's malocclusions (class I, class II, class III), as well as their prevalence in Bangladeshi populations. Lastly, to obtain a nominative data on tooth size discrepancies among Bangladeshi malocclusion group.

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Material and Methods:

This was a cross sectional type study conducted in the Department of Orthodontics, Bangabandhu Sheikh Mujib Medical University (BSMMU) from January 2007 to June 2010. From the record of 350 pretreated dental casts of the department, by purposive sampling, the study samples, 207 pretreatment dental casts of orthodontic patients (Bangladeshi individuals) of both male (60) and female (147) with malocclusion were selected those fulfilling the inclusion criteria. The inclusion criteria were:

a. Presence of all six permanent anterior teeth on both maxilla and mandible without any supernumerary or accessory teeth.

b. All these teeth assed to be morphologically normal without any occlusal abrasion, attrition, caries, restoration, cracked or fracture crown and without any previous history of proximal striping and orthodontic treatment.

They were then categorized into three malocclusion group according to Edward H Angle[7]: Class I, Class II, Class III (Table I). The mesio-distal diameter of each anterior teeth were recorded at maximum diameter of individual tooth when measurement were appear parallel to occlusal plane and labial surface of that tooth by using a sliding caliper with vernier scale and graded gauge (Mitutoyo, Japan). Measurements were carried out with a reading accuracy of 0.1mm. All those data ware measure twice, if the second measurement differ by more than 0.2mm from the first measurement, re-measurement were carried out. Recorded data then collected by a structured data collection sheet and anterior teeth discrepancy were calculated by Bolton[6] formula as below:

Anterior teeth discrepancy= [(sum of mesio-distal width of mandibular six Anterior teeth) ÷ (sum of mesio-distal width of maxillary six anterior teeth) × 100]

Statistical analyses were performed by using SPSS 16.0 (Chicago, IL) software with a provability level of 0.05 considered to be statistically significant. Analysis of variance (ANOVA) was used to determine the statistical significant difference between mean. Bolton anterior tooth size ratios as a function of Angle's classification as well as sex. The same researcher performed all measurements and reproducibility of the method were tested by re-measuring randomly selected thirty pairs (10 pairs from each group) of dental cast and tested with Wilcoxon nonparametric test (Table 2).

Results:

Out of 350 dental casts, 207 those fulfilling the inclusion criteria were studied. Among those 207 dental casts, 112 (male 32, female 80) were grouped in class I malocclusion, 80 (male 22, female 85) were class II and 15 (male 6, female 9) in class III malocclusion (Table I). The tooth size discrepancies were determined using the published ratio as described by Bolton's 77.2 ± 1.65% for the anterior ratios within ±1 SD were considered "normal," and those greater than ±1 SD were labeled as having a tooth size discrepancy [6].

The present study shows having discrepancy (as having more than ±1 SD) in both male and female malocclusion group of Bangladeshi population but without having any significant dimorphism for tooth size discrepancy between these two sex groups (Table III). In our present study on Class I malocclusion group, the mean Bolton ratio for anterior teeth were measured 78.26± 2.71. This finding indicates the presence of tooth tissue discrepancy in Class I malocclusion group. Moreover, in case of Class II and Class III malocclusion groups of Bangladeshi population, this study also exhibited presence of tooth size discrepancy compare with that of Bolton's reference value (Table IV).

Table-I

Distribution of Malocclusion group with age and gender (n=207).

Malocclusion groups	Age(years)			Sex	
	Range	Mean	SD(±)	Male	Female
Class-I	12-36	19.18	± 5.71	32	80
Class-II	12-30	18.52	± 4.99	22	58
Class-III	12-25	17.86	± 5.34	6	9

Table-II

Comparison between two measurements of tooth size Discrepancies.

Group	Measurement	n	Minimum	Maximum	Mean	SD	P value
Class I	1	10	76.0	84.0	80.2	1.6	.176
	2	10	77.2	83.5	80.0	1.6	
Class II	1	10	75.8	80.0	78.2	1.4	.183
	2	10	75.9	80.2	78.2	1.3	
Class III	1	10	74.5	84.9	79.0	1.8	.155
	2	10	75.5	84.9	79.9	1.9	

Table-III

Mean Bolton anterior ratios of all subjects of malocclusion groups as a function of gender.

Gender	Sample size (n)	Mean	Standard Deviation (SD)	Range	p value
Male	60	79.23	± 2.38	73.79-87.09	0.02
Female	147	80.13	± 2.39	72.45-86.02	

Table-IV

Distributions of Teeth discrepancy with Angle's malocclusion groups.

Malocclusion	Bolton Anterior Ratio		
groups	Mean	SD(±)	Range
Class-I	78.26	± 2.71	74.51-85.62
Class-II	76.28	± 1.99	71.37-77.28
Class-III	79.76	± 2.34	73.71-91.90

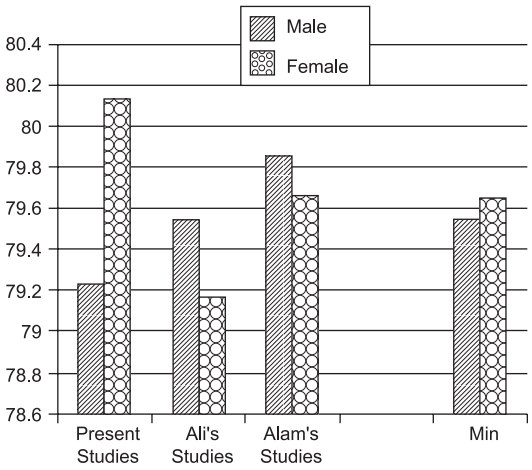

Fig.-1: *Bar chart showing comparative Bolton ratio for anterior tooth in the different Bangladeshi populations and their mean value for both genders.*

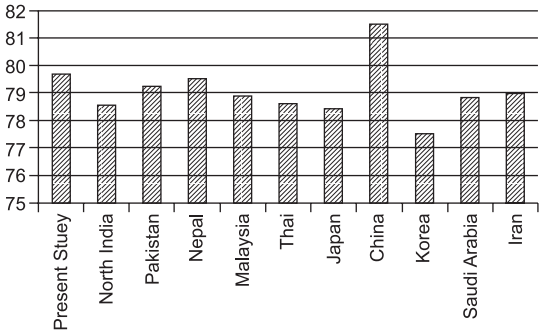

Fig.-2: *A comparative representation of our present study's anterior ratio with that of other Asian country populations: Northern India[10], Pakistan[11], Nepal[12], Malaysia[13], Thai[14], Japan[15], China[16], Korea[17], Saudi Arabia[18], and Iran[19].*

Discussion:

In 1958, Bolton[6] studied 55 Caucasian subjects having normal occlusion where his mean anterior ratio value was 77.2. Where as in other study[1,8,9] on Bangladeshi population the Bolton ratio were also measured in different group of normal population comparing that of with malocclusion group is also close to our present study. In the earlier study, the anterior Bolton ration of Bangladeshi population by Ali MW[8] was calculated 79.55 for male and 79.17 for female. However they

calculated their ratio with comparing a referral 50 normal occlusion group (25 female and 25 male). And their total sample sizes for malocclusion group were 150. Although the other study on Bangladeshi population by Alam MK[9] were conducted with a larger sample size (260) however the malocclusion group constitute with 160 sample and the rest 100 sample were normal occlusion group. In that study malocclusion group were divided by spacing (73 samples) and crowding (87 samples) group not on the basis of Angle's classification of malocclusion. Whereas the present study constitute with 207 malocclusion individual grouped into angles classification of malocclusion. A comparative study among these three study (present study and two other previous study) reveals the average anterior tooth ratio for male 79.55% and for female 79.65% in Bangladeshi population (Fig.-1). Moreover in our present study average anterior ratio for Bangladeshi population has been calculated 79.68% (Fig.-2).

In comparison to present study on Bangladeshi population's anterior teeth ratio with that of the others study on Asian population (India[10], Pakistan[11], Nepal[12], Malaysia[13], Thai[14], Japan[15], China[16], Korea[17], Saudi Arabia[18], and Iran[19]) shows similar finding.

Conclusion:

Gender differences in the anterior tooth discrepancy in Bangladeshi malocclusion group were not significant. A mean value of anterior tooth discrepancy has been calculated for Bangladeshi malocclusion group which is closer to other neighboring country population in compare to the rest other population in the world.

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Barriers of Appropriate Complementary Feeding Practices in Under – 2 Children

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Summary:

When breast milk is no longer enough to meet the nutritional needs of infants, complementary foods should be added to their diet. It is a very vulnerable period when malnutrition starts in many infants, contributing significantly to high prevalence of malnutrition in under-5 children world-wide. In Bangladesh, complementary feeding (CF) practices are not satisfactory. The objectives of the study were to look into the feeding patterns of under-2 children and to identify the causes which lead mothers/ caregivers to practice inappropriate CF. This cross-sectional study was done in the Pediatric department of Sir Salimullah Medical College Mitford Hospital, Dhaka and in a private chamber from a district town of Bangladesh from October, 2011 to December, 2011. Four hundred mother-child pairs were enrolled by non-random convenience sampling. Different aspects of feeding practices (age of initiation of CF, type of first complementary food, current main complementary food & its quantity, and frequency of CF) were analyzed. Bottle feeding, fast foods and lack of proper family support were most important barriers (p<0.05). High rate of early initiation of CF was mainly due to mothers' perception that breast milk alone was not enough (81.8%) and main cause of late initiation was refusal of complementary foods by their babies (48.4%). Feeding practices were mainly influenced by relatives (25%), qualified doctors (15.3%), neighbors (14.5%) & mother-in-laws (13.5%). CF practices are still far from ideal. Strengthening of nutrition education to mothers/caregivers and family members/relatives along with awareness building in the community may change the wrong practices.

Key words: Barriers, Complementary feeding

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Introduction:

When breast milk is no longer enough to meet the nutritional needs of the infant, complementary foods should be added to the diet of the child. The transition from exclusive breast feeding to family foods, referred to as complementary feeding (CF), typically covers the period from 6 to 18-24 months of age, and is a very vulnerable period. It is the time when malnutrition starts in many infants, contributing significantly to the high prevalence of malnutrition in children less than five years of age world-wide[1, 2, 3, 4, 5]. World Health Organization estimates that two out of five children are stunted in low-income countries [1]. Poor feeding practices and low quality foods can affect future learning ability, economic productivity, immune response and reproductive outcomes [6]. Cultural factors and taboos appeared to have an important influence on mothers' infant-feeding practices and eating patterns of their children [7]. In Bangladesh, CF practices are not satisfactory. A recent study in a medical college of Dhaka city showed that amount, composition & consistency of complementary foods are not optimal [8]. Another study in a rural area of Dhaka district also found that onset, type and frequency of CF are not acceptable [9]. Similar findings were observed by other investigators in urban slum, semi-urban & rural areas of our country [10, 11, 12] .

The objectives of the study were to look into the feeding patterns of under-2 children including age of initiation

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of CF & its frequency, type of first complementary foods, composition & quantity of complementary foods, and to identify the causes which lead mothers/ caregivers of children to practice inappropriate CF.

Methods:

A cross-sectional study was conducted in the in-patient and out-patient Departments of Pediatrics, Sir Salimullah Medical College & Mitford Hospital (SSMC&MH), Dhaka, Bangladesh and in a private chamber at a district town (Gazipur) of Bangladesh from October, 2011 to December, 2011. A total of 400 mother-child pairs were enrolled by non- random convenience sampling. Data was collected from the mothers/caregivers of the children in a pretested semi-structured questionnaire which took about 20-30 minutes in each case. Children of 6-24 months of age and children under six months (if CF was already started) were included. Children under six months (if on exclusive breast feeding) and children having major illness interfering with feeding like cerebral palsy, congenital heart disease, cleft palate etc. were excluded.

Case definitions:

Barrier - A circumstance or obstacle that keeps people or things apart or prevents communication or progress.

Characteristics of proper CF - A proper CF consists of foods that are rich in energy

and in micronutrients (especially iron, zinc, calcium, vitamin A, vitamin C and folates), free of contamination (pathogens, toxins or harmful chemicals), without much salt or spices, easy to eat and easily accepted by the infant, in an appropriate amount, easy to prepare from family foods, and at a cost that is acceptable by most families [13].

Appropriate complementary foods - Khichuri, Mixed family foods (Rice, pulses, vegetables, meat, egg and fish), Bread, Pitha, Fruits, Locally processed complementary foods etc.

Inappropriate complementary foods - Rice gruel, Rice gruel with Sugar, Rice gruel with Milk, suji (Wheat), Suji with Milk, Suji with Sugar, Sago, Burly, Sugar water, Animal milk, Formula, Commercial cereal, Fast foods etc.

Khichuri – A dish prepared by mixing rice, lentils, oil, vegetables, egg/meat/fish etc.

Fast foods – Foods that are prepared and served very quickly, first popularized in the 1950s in the United States. While any meal with low preparation time can be considered fast food, typically the term refers to food sold in a restaurant or store with preheated or precooked ingredients, and served to the customer in a packaged form for take-out/take-away. Fast food restaurants are traditionally separated by their ability to serve food via a drive-through (Wikipedia) e.g. Burger, Sandwich, French fries, Pizza, Hot dog, Noodles, Fried chicken, Chips, Biscuits, Soft drinks, Commercial juices etc. Frequency of CF was defined according to recommendation of Integrated Management of Childhood Illness (IMCI) by WHO/UNICEF.

Quantity of complementary foods was defined according to IYCF recommendation.

Knowledge about CF was assessed by asking about optimum initiation time, types of recommended complementary foods, frequency and quantity.

Data analysis: Data were analyzed by SPSS version 12. Bivariate tables were prepared. Chi square tests were done where applicable. Statistical significance was considered to be at the level of $p<0.05$.

Ethical consideration: Verbal consent was taken from the mothers/caregivers of the children after discussion about the study. Confidentiality was strictly protected. Permission was taken from the ethical committee of SSMCMH, Dhaka, Bangladesh.

Results:

Most of the children under study were from out-patient department (68.7%) followed by private chamber (25%) and indoor (6.3%). 56.2% children came from urban areas followed by rural (28.2%), semi-urban (15.2%) and urban-slum areas (0.2%). Male female ratio was 1.3:1. Three hundred & eighty five mothers (96.2%) were caregivers.

Table-I

Age (month) of initiation of complementary feeding (n=400)

Age	Frequency	Percentage
≤4	60	15.0
5-6	137	34.2
7	137	34.2
8-10	36	9.0
11-12	9	2.2
13-24	5	1.2
Not yet started	16	4.0

In 377 cases (94.2%), mothers were housewife followed by handicraft worker in eight (2%), service in six (1.5%).

Mother's educational status was secondary incomplete in 185 cases (46.2%) followed by secondary complete or higher in 81 (20.2%), primary incomplete in 62 (15.5%), no education in 49 (12.2%) and primary complete in 23 (5.8%).

Table-II

Reasons for early initiation of complementary feeding (n=121)

Reasons	Frequency	Percentage
Didn't get enough breast milk	99	81.8
Advised by elderly members of family	10	8.3
Did not know the time of initiation of complementary feeding	5	4.1
Others	7	5.8

Father's educational status was secondary incomplete in 147 cases (36.8%) followed by secondary complete or higher in 101 (25.2%), primary incomplete in 70 (17.5%), no education in 56 (14%) and primary complete in 26 (6.5%). Father's education had no significant influence on initiation, type of first complementary food and current main complementary food ($p>0.05$), but had significant influence on frequency of CF ($p=0.007$).

Sixty eight percent (n=272) families were single. Family status (single or joint) had no significant influence on initiation, type of first complementary food and on frequency of CF ($p>0.05$) but had significant influence on current main complementary food ($p<0.05$).

Family members were 5-10 in 207 cases (51.8%) followed by ≤ 4 in 177 (44.2%) and ≥ 11 in 16 (4%). Family size had significant influence on current main complementary food ($p=0.045$), but insignificant influence on initiation, type of first complementary food and frequency of CF ($p>0.05$).

Most children (90.8%) were from Muslim families followed by Hindu (9.2%). Religion had no significant influence on initiation, type of first complementary food, current main complementary food and frequency of CF ($p>0.05$).

Cultural barriers had no significant influence on initiation, type of first complementary food, current main complementary food and frequency of CF ($p>0.05$).

Exclusive breast-feeding for six months was only in 39 cases (9.8%). Most children (54.1%, n=216) were exclusively breast-fed for one month only. Most children (83.8%, n=335) were on partial breast-feeding and 65 (16.2%) were without breast-feeding during the time of interview.

Two hundred & eighty three children (70.8%) were on formula feeding, majority (19%, n=76) started within first month of life followed by 45 (11.2%) at seventh month. It had significant influence on type of first complementary food ($p= 0.007$) and current main complementary food ($p=0.002$) but had no significant influence on initiation ($p=0.926$) and frequency of CF ($p=0.064$).

Table-III

Reasons for late initiation of complementary feeding (n=62)

Reasons	Frequency	Valid Percent
Got enough breast milk	8	12.9
Advised by elderly members of family	8	12.9
Did not know the time of initiation of complementary feeding	11	17.7
Baby refused to take complementary foods	30	48.4
Complementary foods caused diarrhea	3	4.8
Others	2	3.2

Animal milk (cow/goat) was given to 228 children (57%), majority (14.8%, n=59) at seventh month followed by 31 (7.8%) at sixth month. It had significant influence on type of first complementary food ($p=0.05$) but had no significant influence on initiation ($p=0.973$), current main complementary food ($p=0.996$) and frequency of CF ($p=0.213$).

Bottle feeding was practiced in 297 children (74.2%), majority (19%, n=75) at first month of life followed by 42

(10.5%) at seventh month, 36 (9%) at second month and 34 (8.5%) at sixth month.

Commercial cereal was given to 128 children (32%).

Fast foods were given to 206 children (54.8%).

Current feeding practices were mainly influenced by relatives (25%, n=100) followed by doctors (15.3%, n=61), neighbors (14.5%, n=58), mother-in-laws (13.5%, n=54), husbands (6.3%, n=25), television (6%, n=24), other family members (5%, n=20) etc.

Two hundred & ninety six mothers/caregivers (75.3%) did not get proper support from families for CF.

Three hundred & eighty nine mothers/caregivers (97.2%) knew something about CF, seven knew nothing (1.8%) and four knew well (1%).

Attitude of mothers/caregivers towards CF was positive in 333 cases (84.7%).

Two hundred & fifteen mothers/caregivers (53.9%) were given nutrition education by health workers. Nutrition education had significant influence on the type of first complementary food (p=0.003), but not on the initiation (p=0.463), current main complementary food (p=0.140) and frequency of CF (p=0.272).

First complementary food was rice gruel with milk in 102 children (26.6%) followed by khichuri in 71 (18.5%), commercial cereal in 58 (15.1%), rice gruel alone in 37 (9.6%), mixed family foods in 26 (6.8%) etc.

Current main complementary food was rice gruel with milk in 98 children (25.5%) followed by mixed family foods in 83 (21.6%), khichuri in 62 (16.1%), suji (wheat) with milk in 54 (14.1%) etc.

Regarding quantity of complementary foods per feed, 36% were inappropriate in seventh month, 95% in eighth month, 100% in 9 – 11th months and 97.4% in 12th – 24th months age group.

Table-IV

Effect of bottle feeding on complementary feeding practices

Effect on	Yes	No	Total	P value
Initiation:Appropriate	129 (44.9%)	58 (59.8%)	187 (48.7%)	0.011
Not appropriate	158 (55.1%)	39 (40.2%)	197 (51.3%)	
Type of first complementary food:Appropriate	65 (22%)	43 (42.2%)	108 (27.1%)	0.000
Not appropriate	231 (78%)	59 (57.8%)	290 (72.9%)	
Main complementary food:Appropriate	104 (35%)	52 (51.5%)	156 (39.2%)	0.003
Not appropriate	193 (65%)	49 (48.5%)	242 (60.8%)	
Frequency of CF:Appropriate	166 (58%)	47 (50.5%)	213 (56.2%)	0.205
Not appropriate	120 (42%)	46 (49.5%)	166 (43.8%)	

Table-V

Effect of fast foods on complementary feeding practices

Effect on	Yes	No	Total	P value
Initiation:Appropriate	113 (54.3%)	72 (41.4%)	185 (48.4%)	0.090
Not appropriate	95 (45.7%)	102 (58.6%)	197 (51.6%)	
Type of first complementary food:Appropriate	69 (32.5%)	39 (21.2%)	108 (27.3%)	0.011
Not appropriate	143 (67.5%)	145 (78.8%)	288 (72.7%)	
Main complementary food:Appropriate	103 (48.6%)	53 (28.8%)	156 (39.4%)	0.000
Not appropriate	109 (51.4%)	131 (71.2%)	240 (60.6%)	
Frequency of CF:Appropriate	87(42.2%)	124 (72.5%)	211 (56%)	0.000
Not appropriate	119 (57.8%)	47 (27.5%)	166 (44%)	

Table-VI

Effect of family support on complementary feeding practices

Effect on	Yes	No	Total	P value
Initiation:Appropriate	55 (60.4%)	126(44.1%)	181 (48%)	0.006
Not appropriate	36 (39.6%)	160(55.9%)	196 (52%)	
Type of first complementary food:Appropriate	47 (48.5%)	60 (20.4%)	107 (27.4%)	0.000
Not appropriate	50 (51.5%)	234 (79.6%)	284 (72.6%)	
Main complementary food:Appropriate	71 (73.2%)	82 (27.9%)	153 (39.1%)	0.000
Not appropriate	26 (26.8%)	212 (72.1%)	238 (60.9%)	
Frequency of CF:Appropriate	31 (33.3%)	179 (64.2%)	210 (56.5%)	0.205
Not appropriate	62 (66.7%)	100 (35.8%)	162 (43.5%)	

Frequency of CF was inappropriate in 29 children (61.7%) whose mothers had no education, 12 (57.1%) with primary completed mothers, 29 (50.9%) with primary incomplete mothers, 40.6% with secondary incomplete mothers and 25 (31.6%) whose mothers had completed secondary education or higher. This was 31 (58.5%), ten (45.5%), 37 (56.9%), 51 (35.7%) and 37 (38.5%) respectively in relation to father's education.

Breastfed children under one year of age were given less frequent CF (d"2 times) in 40 cases (20.2%). But in non- breastfed children under one year of age, all were given five times or more. In children who were older than one year, frequency of CF was appropriate (e"5 times according to IMCI protocol) in only 38 (23.5%).

Frequency of CF was inappropriate in 90 (46.6%), 50 (42.4%), 22 (4.5%), four (30.8%) and 0% of children with birth order one, two, three, four and five respectively.

Discussion:

CF practices are influenced by many factors and a bit complicated for mothers/caregivers. In this study, different aspects of CF (age of initiation, type of first complementary food, current main complementary food & its quantity, and frequency of CF) were found to be affected by academic education of parents, pre-lacteal feeding, bottle feeding, formula feeding, commercial cereal, fast foods, feeding during sleep, family support, nutrition education, mother/caregiver's attitude towards CF. Recall biasness and unequal sample size from urban & rural areas were main limitations of our study.

Early initiation (< six months) was still high (49.2%). The main cause was mother's perception that the baby did not get enough breast milk, and so hungry that she was compelled to start CF. This correlates with studies done by Heinig et al. [4], Lindsay [7], Kumudha [14], Ruel [15], Giashuddin [16] and Zulkifli [17].

Late initiation of CF was low in this study (16.4%). This was mainly due to baby's refusal of complementary foods. Late initiation is an important problem in different countries [14, 18, 19]. In India, religious factor in Hindu families is responsible for late initiation [20]. But in Bangladesh, religious barrier regarding initiation is nil among Muslims.

Education of parents was found to have insignificant influence on CF practices except on frequency. This might be due to other influencing factors which are stronger than education e.g. advice of family members/ relatives/neighbors. But Bangladesh Demographic and Health Survey (BDHS) preliminary report (2007) showed that timely initiation of CF was more common in educated mothers than the mothers who were not educated or had primary level education. Maternal education level (OR = 2.44, 95% CI: 1.42-4.19, p< 0.05) were found to be correlated to inappropriate feeding practices in China [21.] Educated mothers in Uganda were more likely to prepare special complementary foods than the un-educated (OR= 2.7, CI 1.1-6.2) [22]. There was statistically significant difference observed in CF practices among educated and uneducated mother in Pakistan, but father's education did not have any correlation with infant feeding practices [23].

Pre-lacteal feeding had significant influence on age of initiation and type of first complementary food. Pre-lacteal feeding is usually influenced by elderly members

of the family (e.g. mother-in-law), relatives and neighbors. They also have great role for CF practices in our society. So, mothers are easily misguided by them.

Bottle feeding had significant influence on initiation, type of first complementary food and current main complementary food. Bottle feeding is easy for baby. So, once they are fed with bottle, they do not want to suck breast or take complementary foods. Bottle-fed babies had significantly delayed weaning (> 9 months) in Pakistan [24].

Commercial cereal feeding has been increasing day by day even in low income group in our country. This food is not recommended here. It had been found to influence type of first complementary food and frequency of CF in this study. Frequency was more with commercial cereal as it is tasty, flavored and easily accepted by babies. Similar finding was found in a study by Lindsay et al. [7].

Fast foods had been found to influence significantly the type of first complementary food, current main complementary food and it's frequency. These foods are also tasty, easily cooked, easily available and gladly accepted by children which deviates them from normal family foods. Heinig et al. also observed similar finding [4].

Feeding during sleep at night is a common practice in our country. Usually formula/animal milk with or without rice gruel/suji are given to babies. This practice interferes with feeding of normal family foods. It had significant role on CF practices in this study, especially on current main complementary food and frequency. It is a common problem (82.6%) in Sri Lanka too [25].

Family support is very important for appropriate CF practices which are not sufficient in our country. Mothers are easily misdirected by family members. Lack of adequate knowledge and misconceptions among elderly persons, especially mother-in-law, who generally influences and guides child feeding practices in the family, are often important barriers. It affected initiation, type of first complementary food and current main complementary food in this study. Similar findings were observed by an Indian study [14].

Mothers/caregivers' attitude towards CF practices can also influence a lot. Some are inherently reluctant and frequently influenced by other persons. 15.3% were reluctant to feed their children appropriately in this study. Their negative attitude affected current main complementary food and frequency significantly.

Surprisingly, nutrition education of mothers/caregivers influenced significantly only the type of first complementary food in this study. This might be due to inadequate and ineffective methods of nutrition education in our country. But in a number of studies abroad, it has important role [3, 4].

Conclusion:

CF practices are still far from ideal in Bangladesh. Many factors affect different aspects of CF. Many persons around the mothers/caregivers influence them a lot. Educational qualification of parents has little positive role. Early and late initiations are due to some misconceptions. Bottle feeding, fast foods and lack of proper family support are the most important barriers of appropriate CF practices followed by pre-lacteal feeding, formula feeding, commercial cereal, feeding during sleep and negative attitude of mothers/caregivers.

Recommendation:

Pre-lacteal feeding and bottle feeding should be rooted out. Feeding of commercial cereal and fast foods, feeding during sleep should be discouraged. Family support is to be strengthened by improving nutrition education to family members, especially mother-in-law and husband. Attitude of mothers/caregivers must be changed by repeated counseling starting from antenatal visits. Whole community should be motivated and involved actively. Government organizations and NGOs along with mass media should be utilized more vigorously for awareness building.

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Health Problems of the Elderly Population in Some Selected Urban Slums of Dhaka City

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Summary:

Aging is universal and it is inescapable, beginning at birth, which should be regarded as a normal biological process leading to functional deterioration, vulnerability and ultimately culminating to extinction of life. Population ageing is becoming a major concern both in the developed and developing countries. Many health problems are known to increase with age and this demographic trend may lead to an increase in the absolute number of health conditions in this population. To identify health problems of elderly population and assess their socioeconomic condition.

This descriptive cross sectional study was carried out over 531 elderly people selected purposively from some urban slums of Dhaka city during July to December, 2013. Each eligible participant was informed about the purpose and procedure of the study. Trained interviewers collected information by face to face interview using a pre-tested questionnaire having both structured and open ended questions.

Majority 389 (73.3%) were from the age group of 60-69 years. The mean age of the respondents was found to be 65 years; (SD±7.048). Majority of them were male 68.7%, illiterate 78.8%, employed as small businessman 26% and belonged to joint family 75.0%. Their average monthly income was 4747.02 ± 2796.368 Taka. About 272(51.2%) respondents were dependent on other earning family members. A significantly higher proportion of women suffered from diabetes, hearing impairment, vertigo, joint pain, depression, while chest pain, chronic cough, difficulty in micturation, anxiety were observed more in elderly men.

The study sheds new light which may help to provide adequate guideline for the senior citizens to overcome old age health problems. As there is a rapid increase in the number of elderly population, there is an urgent need to develop affordable and accessible health care services.

Key words: Elderly population, Health problem, Slum.

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Introduction:

Ageing is defined as a biological process with time dependent irreversible changes leading to progressive loss of functional capacity after the point of maturity. Last two decades have seen drastic changes in population and the increase of aged (above 60 years) population (60.5% during 1980-2000) is more than that of general population (37.6%); the increase were 82.5% and 46.2% respectively in developing countries. Those above 80 years were 34.2 million in 1980 and are expected to reach 103.9 million in 2020; an increase of about 204%.[1] Dhaka is the capital city of Bangladesh and one of the most densely populated and rapidly expanding mega-cities in the world. It is estimated that every year 300,000 to 400,000 new migrants come to Dhaka from different parts of the country and mainly reside in more than 5,000 slums across the city.[2] Proximity to health care is greater in urban Bangladesh than in rural areas, but proximity doesn't always ensure better access or utilization. This is because most slum dwellers are not aware of how to utilize urban health care systems.[3] The issue of health care-seeking (medical-care) behavior is crucible to all societies.[4] Large gaps still exist in the knowledge on the health status and health seeking behavior of the elderly persons.[5] Population ageing has grown into a 'defining global issue' and concerns have emerged regarding development policy interventions appropriate for older people, especially in the area of elderly health problems and health care. Majority of the elderly people are suffering from some basic problems, such as lack of sufficient income, employment opportunities, malnutrition, chronic diseases, absence

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of proper health care facilities and lack of adequate family support.[6]

The Government of Bangladesh has initiated some programs like pension, gratuity, welfare fund, aged persons fund, group insurance and provident fund for the retired government officials and employees. Health care issue of the elderly people in Bangladesh has not yet received any importance, though it is increasing alarmingly.[7] With reduced ability to generate resources, the elderly lack basic needs that affect their health status. Emphasis for an effective health policy for the senior citizen may reduce this problem.[5] This study was undertaken to explore the health problems present among the elderly people residing in some selected urban slums of Bangladesh.

Methodology:

This was a descriptive cross sectional study done over 531 elderly people purposively selected from Moghbazar, Kamlapur, Bashaboo slums of Dhaka city during July to December, 2013 to assess their socioeconomic condition and identify their health problems. A house to house survey was conducted and a total of 531 respondents were enrolled for the study. Sample size was detected by using formula n= Z^2 pq/d^2. Purposive sampling technique was used in the study. Each eligible participant was informed about the purpose and procedure of the study. Only interested dwellers were interviewed. After obtaining a verbal consent, trained interviewers collected information's by face to face interview using a pre-tested questionnaire having both structured and open ended questions. The questionnaire included socioeconomic variables like age, sex, education, family size, dependency, occupation and monthly family income. Some questions related to health problems were also included in the questionnaire. Assurance had been given that the confidentiality concerning their information would be maintained strictly. Collected data were checked, verified & then enter into the computer. Only the fully completed questionnaire was entered into the computer for final analysis which was carried out with the help of SPSS (Statistical Package of Social Science, version-17) windows software program.

Results:

Table 1 shows that out of 531 respondents, majority 389 (73.3%) were from the age group of 60-69 years. Remaining other respondents, 98(18.5%), 34(6.4%) and

Table-I

Distribution of the elderly people by socio-demographic characteristics (n = 531)

Variables	Frequency	Percent
Age group60-69 years	389	73.3
70-79 years	98	18.5
80-89 years	34	6.4
≥90years	10	1.8
Mean = 65.00; (SD = ± 7.048)		
Sex		
Male	365	68.7
Female	166	31.3
Religion		
Islam	496	93.4
Hindu	31	5.8
Christian	2	0.4
Buddhist	2	0.4
Educational qualification		
lliterate	418	78.8
Literate	113	21.2
Occupation		
Unemployed	73	13.7
Rickshaw/van puller	71	13.4
Home assistant	44	8.4
Small business	138	26.0
Day labour	76	14.3
House wife	80	14.8
Others	49	9.2
Monthly income		
Taka d"2000	90	17.1
Taka 2001-4000	189	35.5
Taka 4001-6000	126	23.7
Taka 6001-8000	65	12.2
Taka e"8001	61	11.4
Mean = 4747.02; (SD = ± 2796.368)		
Type of house		
Kaccha	372	70.0
Semipacca	139	26.2
Pacca	20	3.8
Type of family		
Nuclear	133	25.0
Joint	398	75.0
Spouse		
Present	392	73.8
Died	130	24.5
Divorced	04	0.8
Separated	05	0.9

10(1.8%) were in the age group of 70-79 years, 80-89 years and e"90 years respectively. Their mean age was 65 years; (SD±7.048). Majority of the elderly population 365(68.7%) were male and 166 (31.3%) were female. Most 496(93.4%) of the respondents belonged to the Muslim. Regarding educational status, 418(78.8%) was illiterate and only 113(21.2%) elderly people were literate. Among the respondents till at work, 138(26.0%) were working as small businessman. The average monthly family income of the respondents were 4747.02 ± 2796.368 Taka. Majority of 327(70.0%) elderly people lived in kaccha houses and about 398(75.0%) respondents were from joint family. Near about 392 (73.8%) respondents had spouse followed by 130(24.5%) spouse died, 04(0.8%) divorced and 05(0.9%) separated.

Table-2 shows that 259(48.8%) elderly people were independent and 272(51.2%) were somehow dependant on other earning members of the families. Among them 206(38.8%) respondents dependent on son, 40(7.5%) daughter, 26(4.9%) elderly people dependent on their relatives.

Table-II

Distribution of the elderly people by dependent of geriatric people (n= 531)

Dependent of elderly people	Frequency	Percent
Dependency		
Independent	259	48.8
Dependent	272	51.2
If dependentOn son	206	38.8
On daughter	40	7.5
On relative	26	4.9
Total	531	100.0

Table 3 shows that a significantly higher proportion of women suffered from diabetes (females: 29.5% vs. males: 19.7%), hearing impairment (females: 31.3% vs. males: 16.4%), vertigo (females: 51.8% vs. males: 28.5%), joint pain (females: 60.2% vs. males: 43.0%), depression (females: 21.1% vs. males: 6.8%), while chest pain (males: 30.4% vs. females: 21.7%), chronic cough (males: 27.4% vs. females: 16.9%), difficulty in micturation (males: 18.4% vs. females: 7.2%), anxiety (males: 43.6% vs. females: 40.4%) were observed more in elderly men.

Table-III

Specific disease pattern of the respondents (n=531)

Diseases	Sex		p value
	Male	Female	
Endocrinology (Diabetes)	72 (19.7)	49 (29.5)	0.017*
Eye (Cataract)	49 (13.4)	18 (10.8)	0.406
E.N.T.(Hearing impairment)	60 (16.4)	52 (31.3)	0.001*
Neurological			
Tremor	90 (24.7)	58 (34.9)	0.014*
Vertigo	104 (28.5)	86 (51.8)	0.001*
Loss of memory	74 (20.3)	43 (25.9)	0.147
Loco motor system			
Joints pain	157 (43.0)	100 (60.2)	0.001*
Back pain	175 (47.9)	91 (54.8)	0.142
CVS			
Chest pain	111 (30.4)	36 (21.7)	0.037*
Respiratory system			
Chronic cough	100 (27.4)	28 (16.9)	0.009*
Breathlessness	33 (9.0)	21 (12.7)	0.202
GIT			
Pain abdomen	56 (15.3)	31 (18.7)	0.336
Anorexia	112 (30.7)	66 (39.8)	0.040*
Constipation	95 (26.0)	49 (29.5)	0.402
Uro-genital			
Burning micturation	42 (11.5)	29 (17.5)	0.061
Difficulty in micturation	67 (18.4)	12 (7.2)	0.001*
Psychology			
Anxiety	159 (43.6)	67 (40.4)	0.489
Stress	152 (41.6)	89 (53.6)	0.010*
Insomnia	105 (28.8)	65 (39.2)	0.017*
Depression	25 (6.8)	35 (21.1)	0.001*

Notes- * Because of the multiplicity of health problems in subjects total percentage is more than hundred percent.

Table 4 shows that logistic regression analysis showing the effect of 6 independent variables on elderly people's current health status. The variables age of the respondents, sex, educational qualification, occupation, monthly family income and type of family had significant influence on the health status.

Table-IV

Logistic regression analysis showing the effect of independent variables on health status of elderly population (n=531)

Independent variables	B	S.E.	Wald	Sig.	Exp(B)	95.0% CI. for EXP (B)	
						Lower	Upper
Age group	-.002	.244	.000	.993	.998	.618	1.611
Sex	.133	.445	.089	.766	1.142	.478	2.730
Occupation	-.184	.080	5.255	.022*	.832	.711	.974
Education	-.071	.114	.389	.533	.931	.744	1.165
Income	-.336	.169	3.946	.047*	.714	.513	.996
Family type	-.358	.419	.730	.393	.699	.308	1.589
Constant	-.581	.978	.352	.553	.560		

*Significant $p<0.05$

Discussion:

Ageing of population is a natural and unavoidable demographic process. All countries around the world have to face this reality in course of time. Majority of the elderly Bangladeshi slum population in urban setting is suffering from various health problems, however, health care services are insufficient to cope with the problem. The study tried to assess the socioeconomic condition of elderly population and identify their health problems in some selected urban slums of Dhaka city.

Out of 531 elderly respondents, majority 365(68.7%) were male and 166 (31.3%) were female and their mean age was found to be 65 years; (SD±7.048). A study "Morbidities among older people in Bangladesh: Evidence from an aging survey" [8] where analysis finding correlates in our study. Regarding educational status, 418(78.8%) was illiterate and only 113(21.2%) elderly people were literate which is almost similar with the findings done by Munsur A.M. et al.[9] Among the respondents till at work, 138(26.0%) were working as small businessman and their average monthly family income were 4747.02 ± 2796.368 Taka. About seventy percent aged people lived in kaccha houses. Kalam I.M.S et al.[8] noted that 30.8 percent in kaccha house (made of mud, bamboo materials etc.). While only a minor fraction (2.8 percent) lived in paccka house (buildings made of bricks and concrete). The most (56 percent) used housing material was found to be tin. Seventy five percent of the elderly people were from joint family this goes on line with results from urban slums of Hyderabad, Andhra Pradesh, India.[10] Near about 392(73.8%) respondents had spouse followed by 130(24.5%) spouse died, 04(0.8%) divorced and 05(0.9%) separated. A study conducted by Thakur RP el.al.[11] reported that 96.31% (392/407) of the elders lived with their spouse and/or their children, while 8.1% (33/407) lived alone.

Falkingham JC, et al (2011)[12] conducted a study on the health status among older people living in a deprived area of Nairobi, Kenya where most of the older people rely on their own or spouse's income (68%) as their main source of livelihood with a higher proportion of women relying on external support from children / relatives (25%) compared with men (6%).These findings were corresponds with the present findings. Health status of the elderly population is a major problem. The present study showed that a significantly higher proportion of women suffered from diabetes (females: 29.5% vs. males: 19.7%), hearing impairment (females: 31.3% vs. males: 16.4%), vertigo (females: 51.8% vs. males: 28.5%), joint pain (females: 60.2% vs. males: 43.0%), depression (females: 21.1% vs. males: 6.8%), while chest pain (males: 30.4% vs. females: 21.7%), chronic cough (males: 27.4% vs. females: 16.9%), difficulty in micturation (males: 18.4% vs. females: 7.2%), anxiety (males: 43.6% vs. females: 40.4%) were observed more in elderly men. These findings were similar with the findings of the study done by Munsur A.M, [9] Ahmed S.[13] Statistically association was found between age, sex and the state of dependency among the respondents. Similar observation was made by Uddin M.T.[14] Logistic

regression analysis found that age of the respondents, sex, educational qualification, occupation, monthly family income and type of family had significant predictors in determining health status which was similar with the findings of study done in Thailand.[15]

Conclusion:

The study showed that ageing and illness is interrelated and is a natural process. It should not take as burden or liability. Older people should be regarded as valuable human resources. There is a growing need for establishment of counselling centers that can take care of various physical, physiological, psychological and social needs of the elderly. Their ability to lead productive, healthy and meaningful lives should be ensured by the younger generations and the government respectively. It is anticipated that the findings of the study will help the planners and policymakers to offer a better society in future.

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Comparison of CCR, Cockcroft-Gault and Mdrd Formula for the Estimation of Glomerular Filtration Rate

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Summary:

Many organizations recommend the use of equations that provide a rapid method of assessing glomerular filtration rate (GFR) to facilitate the detection, evaluation, and management of chronic kidney diseases. Indeed, many clinical laboratories already report estimated GFR (eGFR) values whenever the serum creatinine level is measured. To compare the predictive equations for the measurement of GFR in Bangladeshi population, we measured GFR by creatinine clearance rate (CCR) and also estimated it by Modification of Diet in Renal Disease (MDRD) 4 variables equation and Cockcroft and Gault (C-G) formula in 61 Bangladeshi subjects who were referred to Armed Forces Institute of Pathology, Dhaka Cantonment for the estimation of GFR by physicians during the period of March 2011 to November 2011. Results are expressed as mean ± SD and compared by two-tailed paired t test, Bland-Altman plots for bias, precision (r^2), receiver-operating characteristics (ROC) curve, and accuracy within 15%, 30% and 50% of the measured GFR. We included 39 (63.93%) males and 22 (36.06%) females with mean age of 52±14 years. The GFR measured by CCR was 61.30±37.38 mL/min/1.73 m^2 and eGFR by MDRD4 and C-G were 51.26±26.86 (P<0.05), 54.98±27.21 (P>0.05) mL/min/1.73 m^2 respectively. The bias was "10.55±25.34 mL/min/1.73 m^2 for MDRD, "6.32±25.90 mL/min/1.73 m^2 for C-G; precision was 0.5407 for MDRD, 0.5201 for C-G; the areas under the ROC curve was 0.5722 (P>0.05) for MDRD4, 0.5444 (P>0.05) for C-G. The percentages of eGFR falling within 15% and 30% of measured GFR were 30%, 52% for MDRD and 35%, 52% for C-G. Both MDRD4 and C-G showed positive bias at GFR<60 mL/min/1.73 m^2 and negative bias at GFR >60 mL/min/1.73 m^2. The results indicate that Cockcroft-Gault formula is more accurate than MDRD4 equation in the overall GFR range, but MDRD4 appears to be more accurate at GFR <60 mL/min/1.73 m^2.

Key words: CCR, MDRD, Cockcroft-Gault formula, Estimated GFR, eGFR in Bangladeshi population.

(J Banagladesh Coll Phys Surg 2015; 33: 207-212)

Introduction:

Glomerular filtration rate (GFR) is a useful marker of kidney function. Decreased GFR indicates the progression of chronic kidney disease (CKD) and kidney failure.[1] The gold standard method for the estimation of GFR is the inulin clearance rate.[2] Clearance of radioisotopes are also considered as reference methods of GFR estimation.[3,4] Use of the reference methods are expensive, time-consuming and requires hospitalization; so it is unsuitable for outpatients. For the assessment of CKD, serum creatinine is most often used to predict the CKD stage. Serum creatinine is affected by factors not associated with GFR.[5-7] To overcome the problems of reference methods and use of serum creatinine alone, GFR prediction equations were developed. GFR prediction equations were developed based on the data of populations that have different dietary food pattern and body muscle mass from our population.[8,9] Studies carried out in populations other than the populations in whom the prediction equations for GFR were developed showed a considerable difference between measured GFR and estimated GFR.[10,11] Two recent studies evaluated various GFR prediction equations in Bangladeshi population.[12,13] But still it requires more studies in different settings about the use of GFR

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prediction equations in our population. The aim of this study was to measure GFR by creatinine clearance rate (CCR), estimate GFR by Modification of Diet in Renal Disease (MDRD) 4 variables equation[8] and Cockcroft-Gault (C-G) formula[9] and to compare the measured GFR with eGFR to evaluate the use of these GFR prediction equations in Bangladeshi population.

Materials and methods:

This cross-sectional study was carried out in the Department of Chemical Pathology, Armed Forces Institute of Pathology (AFIP), Dhaka Cantonment, Bangladesh. We included 61 Bangladeshi subjects referred to AFIP for the estimation of GFR by physicians during the period of March 2011 to November 2011. The inclusion criterion was age >18 years. Exclusion criteria included diabetes mellitus, malignancies, liver, thyroid or infectious diseases at the time of recruitment, organ transplantation and pregnancy. Serum creatinine and 24-hours urinary creatinine concentrations were measured by Jaffe method using reagent and analyzer (Pentra-400) by Horiba, France. Creatinine measurement was calibrated using calibrators traceable to isotope dilution mass spectroscopy (IDMS). Creatinine clearance rate (CCR) was calculated from serum creatinine and 24-hours urinary creatinine excretion and adjusted for body surface area (BSA) [14] to obtain GFR by creatinine clearance and termed as measured GFR. GFR of all patients were also calculated by the Modification of Diet in Renal Disease 4 variables which includes age, sex, ethnicity, and serum creatinine (MDRD4) equation[8] [GFR = 175 x (Standardized Scr)$^{-1.154}$ x (age)$^{-0.203}$ x 1.212 (if black) x 0.742 if female] and by Cockcroft-Gault (C-G) formula[9] [C_{cr} = 0.8 x (140-age) x weight x 0.85, if female x 1.73/72 standardized S_{cr} x BSA] and adjusted for BSA. In these equations, GFR and creatinine clearance are expressed as mL/min per 1.73 m^2, with age in years, weight in kg, creatinine in mg/dL. Relationship of the measured GFR with estimated GFR was determined by linear regression (Pearson's correlation coefficient, r). For comparison, two-tailed paired t test, Bland-Altman plots for bias, precision (r^2), ROC (receiver-operating characteristic) curve, sensitivity and specificity were tested by GraphPad Prism version 5.04 for Windows. For accuracy of the estimated GFR, results within 15%, 30% and 50% of the measured GFR were calculated.

Results:

The mean age of the study subjects was 52±14 years. Of the total subjects, 39 (63.93%) were male and 22 (36.06%) were female. The mean serum creatinine was 1.7±1.1 mg/dL and 24 hours creatinine excretion was 37.03±23.19 mg/dL and 52% subjects had GFR <60 mL/min/1.73 m^2.

The mean of measured GFR by CCR was 61.30±37.38 mL/min/1.73 m^2. $_e$GFR (estimated GFR) by MDRD4 and C-G equations were 51.26±26.86 and 54.98±27.21 mL/min/1.73 m^2 respectively. The correlation coefficients (r) of measured GFR with the estimated GFR were 0.7353 (P<0.0001) and 0.7212 (P<0.0001) for MDRD4 and C-G equations respectively. The bias was "10.55±25.34 mL/min/1.73 m^2 for MDRD, "6.32±25.90 mL/min/1.73 m^2 for C-G; precision was 0.5407 for MDRD, 0.5201 for C-G; the areas under the ROC curve was 0.5722 (P>0.05) for MDRD4, 0.5444 (P>0.05) for C-G. The relationship of measured GFR with reciprocal of serum creatinine and serum creatinine is presented in Fig 1 and ROC is presented in Fig 2. Table I shows the comparison of

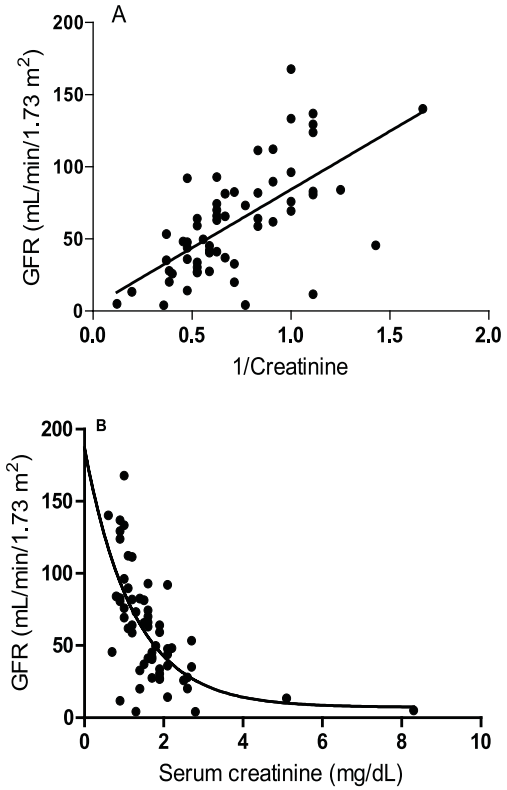

Fig.-1: *Relationship of GFR with reciprocal of serum creatinine (A) and serum creatinine (B*

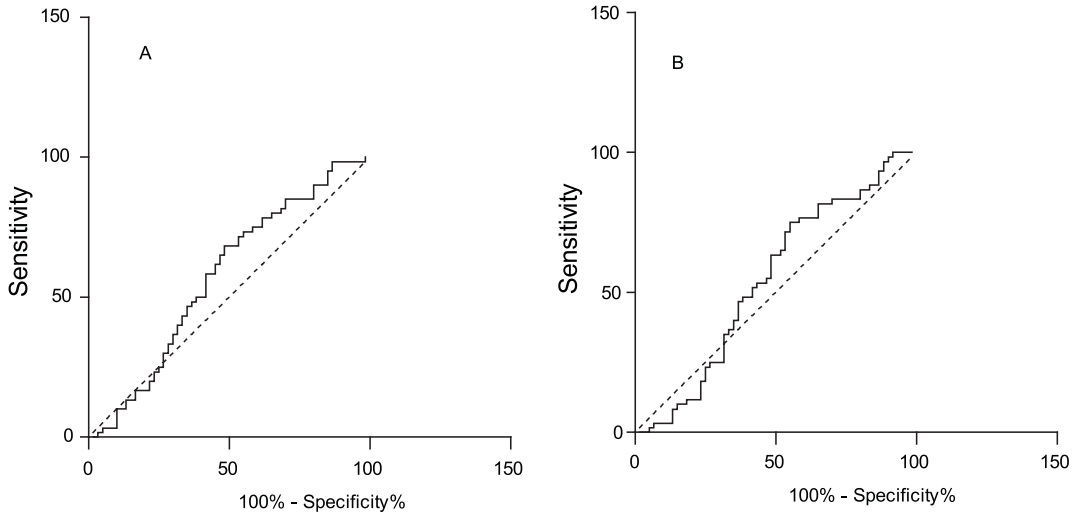

Fig.-2: *Receiver-operating characteristics curve for MDRD4 (A) and C-G (B). Solid lines indicate sensitivity and broken lines indicate the line of identity*

Table-I

Comparison of estimated GFR with measured GFR

	Measured GFR	GFR_{MDRD4}	GFR_{C-G}
Mean±SD (mL/min/1.73m^2)	61.30±37.38	51.26±26.86 **	54.98±27.21^{ns}
Bias (mL/min/1.73m^2)		" 10.55±25.34	" 6.32±25.90
Precision, r^2		0.5407	0.5201
Sensitivity		68.33%	63.33%
AUC		0.5722^{ns}	0.5444^{ns}
Accuracy			
Within 15% of measured GFR		30%	35%
Within 30% of measured GFR		52%	52%
Within 50% of measured GFR		85%	68%

ns, P>0.05; **, P<0.01

estimated GFR with measured GFR. GFR estimated by MDRD4 equation (51.26±26.86 mL/min/1.73 m^2) and C-G formula (54.98±27.21 mL/min/1.73 m^2) were 10.55 mL/min/1.73 m^2 (P<0.01) and 6.32 mL/min/1.73 m^2 (P>0.05) lower than mean of measured GFR (61.30±37.38 mL/min/1.73 m^2). The percentages of eGFR falling within 15% and 30% of measured GFR were 30%, 52% for MDRD and 35%, 52% for C-G. Both MDRD4 and C-G showed positive bias at GFR<60 mL/min/1.73 m^2 and negative bias at GFR >60 mL/min/1.73 m^2. The bias was "10.55±25.34 mL/min/1.73 m^2 for MDRD, "6.32±25.90 mL/min/1.73 m^2 for C-G.

Comparison of eGFR with measured GFR at <60 mL/min/1.73 m^2 and at >60 mL/min/1.73 m^2 is shown in Fig 3. Mean values were 32.57±15.63, 35.85±19.06 and 40.97±19.52 mL/min/1.73 m^2 for measured GFR, MDRD4 and C-G respectively at measured GFR <60 mL/min/1.73 m^2. MDRD4 eGFR was 3.28 mL/min/1.73 m^2 higher (P>0.05) and C-G GFR was 8.39 mL/min/1.73 m^2 higher (P<0.05) than measured GFR at <60 mL/min/1.73 m^2. On the other hand, at measured GFR e"60 mL/min/1.73 m^2, mean values were 92.01±28.13, 66.69±24.93 and 69.96±26.49 mL/min/1.73 m^2 for measured GFR, MDRD4 and C-G respectively. MDRD4 eGFR was 25.32 mL/min/

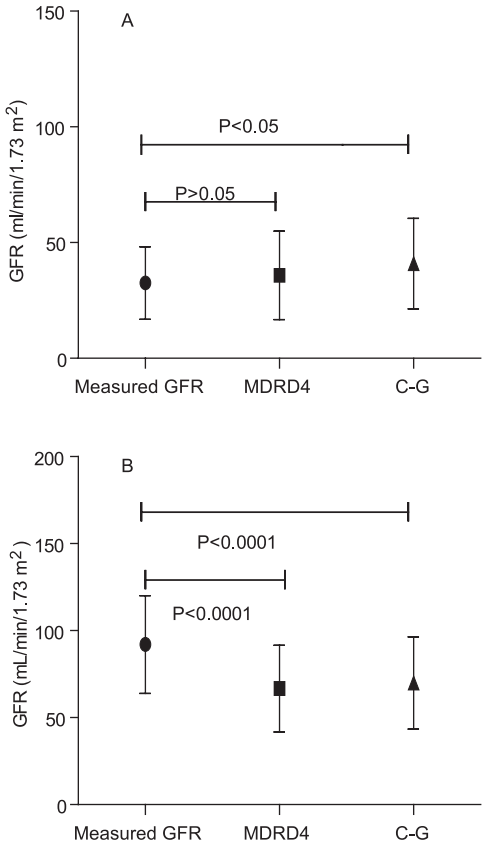

Fig.-3: *Comparison of eGFR with measured GFR at measured GFR <60 mL/min/1.73 m^2 (A) and at GFR e"60 mL/min/1.73 m^2 (B)*

1.73 m^2 lower (*P*<0.0001) and C-G GFR was 22.05 mL/min/1.73 m^2 lower (*P*<0.0001) than measured GFR.

Discussion:

Accurate assessment of renal function is important for diagnostic and intervention purposes, proper medication dosing and decision-making to start dialysis in appropriate stage in CKD patients. The filtration markers (inulin, EDTA, iothalamate, iohexol, DTPA etc) used in the reference methods of GFR measurement are costly and cumbersome to use. Radioactive markers require special handling and disposal. So these standard methods are unsuitable in clinical practice. Instead of standard methods, prediction equations based on demographic characteristics, such as age, gender, race and weight, and biochemical indices, including serum creatinine, urea, and albumin are being used to predict GFR. An estimating equation is derived with the use of regression techniques to model the observed relation between the serum level of the marker and the measured GFR in a study population.[15]

In this study, estimated GFR by MDRD4 equation and C-G formula statistically significantly correlated with measured GFR. Though both equations showed negative bias with measured GFR, estimated GFR by MDRD4 is significantly lower and GFR estimated by C-G showed no significant difference with measured GFR (Table I). The precision, sensitivity, AUC are better for MDRD4 than C-G. Accuracy within 15% of measured GFR is better for C-G, similar within 30% and better for MDRD4 within 50% of measured GFR. However, comparison of eGFR below and above 60 mL/min/1.73 m^2 of measured GFR showed that both MDRD4 and C-G showed positive bias at GFR <60 mL/min/1.73 m^2 and both showed negative bias at GFR e"60 mL/min/1.73 m^2. A consistent finding of this study was the strong negative association between bias and GFR. The higher the GFR, the more likely it would be underestimated regardless of the equation used. However, MDRD4 eGFR is closer to measured GFR at GFR <60 mL/min/1.73 m^2. In this study, MDRD equation showed a sustained advantage in estimating renal function that was more evident as GFR declined which is similar to the study done by Darren Lee et al.[16]

Most of the study subjects of MDRD4 study had GFR <60 mL/min/1.73 m^2 and it is less accurate when GFR is above 60 mL/min/1.73 m^2.[8] The underestimation of these formulas at GFR >60 mL/min/1.73 m^2 is common.[1, 17-19] There are several possible explanations for reports of less accuracy of higher GFR estimates.

- Inter-laboratory variation in calibration of serum creatinine assays, which has a larger effect at higher GFR levels. This is likely an important reason of wide variations among published studies.
- Greater biologic and measurement variability of GFR at higher values; and
- Limitations of generalizing an equation developed in one population to another population.

These are the reasons why most clinical laboratories recommended not to report GFR estimates as numerical

values when MDRD4 eGFR is above 60 mL/min/1.73 m^2.[8,15,21]

In this study we found that at GFR <60 mL/min/1.73 m^2, the MDRD4 appears to be more accurate than C-G with positive bias. This result is consistent with the previous studies done in Bangladeshi population[12,13] in which most of the study subjects had GFR <60 mL/min/1.73 m^2 and also consistent with the work carried out in other South Asian countries like Pakistan[11] and India.[20]

Conclusion:

Estimation of GFR (eGFR) is now a powerful decision making tool in CKD although all GFR estimating equations have some limitations. Since reporting of eGFR delivers important information to the clinicians at little incremental cost; routine reporting is desirable even without request from the physicians whenever serum creatinine is measured. In this study, we found MDRD4 equation more accurate at GFR <60 mL/min/1.73 m^2 and C-G equation more accurate at GFR e"60 mL/min/1.73 m^2. So it needs to be cautious while estimating GFR by using the prediction equations. We also recommend more studies in our population with larger sample size to compare prediction equations against GFR measured by gold standard method.

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REVIEW ARTICLE

Journal club: An Important Teaching-Learning Activity

ABM JAMAL

Summary:

Journal club is an important teaching learning activity of educational institutions and thus improving medical education of the country. It is directly related to improving patients outcome of one,s own department or institution. There is increasing demands to practice effectively medical science at highest stakes. A formal journal club facilitates discussing and evaluating new research and its application to practice and improving patient care. However many a times, journal club fails to achieve its role and a superficial discussion on clinical aspects distracts its aims and objectives. The advantages of using a journal club are that you and your peers can keep current with new transplant knowledge, learn to facilitate the strength of the evidence, promote implementation of new knowledge into practice, and improve patient outcomes. A journal club has been defined an educational meeting in which a group of individuals discuss current articles, providing a form for a collective effort to keep up with the literatures *Key words****: Journal club, Evidence based practice, Medical education.***

Key words: Journal club, Teaching-learning Activity, Medical education.

(J Banagladesh Coll Phys Surg 2015; 33: 213-217)

Introduction:

Journal clubs are a well-recognized quality improvement strategy used by health practitioners to critique and keep up-to-date with relevant health literature. A number of authors reported that sir William Osler started the first recorded journal club in Britain in 1875 as a way of sharing educational resources[1,,2]. He encouraged journal club attendees to apply their updated knowledge from participation of journal club. From its inception, goal was to share current knowledge and translate it into evidence based patient care. There are many advantages of participating in a journal club, including keeping a breast of new knowledge, promoting awareness of current research findings, hearing to critique and appraise research becoming familiar with the best current clinical research and encouraging research utilization.[3] It is therefore an ongoing challenge for clinicians to design and maintain a stimulating, educational and sustainable journal club format that assists the participants to date with the literature and to translate journal. The outcomes of the research may be presented by the individual student or by the group as a report, a poster, a videotape in a journal club or in a written material.[4]

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Objectives of journal club Presentation

The general purpose of a journal club is to facilitate the review of a specific research study and to discuss implications of the study for clinical practice. This is an important ways in which success can be measured as a clinical teacher and may choose to specialize in any of a number of paths to progression. Journals are naturally biased towards research. What most journal editors are hoping, frequently in vain, to see when they approach a pile of new submissions is innovative, ground-breaking research which will be frequently read and widely cited. Although, as we have said, there are many valid products of excellence in medical education, the majority of journals cannot space for people to display their skills in clinical teaching unless the work they have submitted is: original, educationally important, academically rigorous.[4]

a. Education—The main educational goals are to teach the trainee about research activity, presentation skills, computer and internet literacy, critical analysis of literature. The trainee and trainers can also develop patient management skill through modern and up to date concepts of medical science. They can also find a way out for self directed learning approach.

b. Evaluation of trainee- In many countries, now a days residency program is used as a mean to evaluate the trainee as their competency. Still many

centers following the earlier systems of fellowship program like BCPS. Running a well planned Journal club can be used as a useful tool to evaluate residents presentation skills, attitudes, punctuality, quality of care and ultimately the progress in clinical medicine. Though overall progress of the trainee can be assessed by other means, still journal club can be added to those.

c. Evaluation of quality service- Journal articles published within and outside the institution can be discussed in journal club will be beneficial for service improvement of a particular institute. Sometimes comparison with similar institute is also possible through discussion from publication done by other institute.

d. Detection of adverse events- Though discussion in journal club has got limited scope for discussion about issues on particular patient but in relation to example cited in a situation it can be drawn and put forward in front of the audience and make a conclusion thereafter.

e. Social Interaction-Journal club discussion provides a unique opportunity for trainee and faculty members to socialize. In the survey of journal club most of the participants pointed out that it is an important tools for daily social events for them.

f. Faculty development- Through journal club presentation faculty development program can be strengthen and individual faculty can get benefit from others. Participation of each faculty in journal club will motivate their involvement in research. Moreover, good number of teacher will get benefit from each other through discussion.[6]

Structure of journal club presentation

The following organization are commonly observed in journal club.

a. Arrangement—Usually done once in a week but can be complemented more than that. Better , if it resume early in the morning as a first incident of the day so that fresh mind will contribute more. In some center where more than one unit works together, journal club can be arranged many times in a week or even at evening time. In Bangladesh , most center it runs once in a week and very early in the morning. Usually the presentation part take about 15-20 minutes followed by 30 minutes discussion time. It should be remembers that open and free discussion is the heart of the journal club. Many a times it has been observed that discussion runs among the most senior faculty members while trainee fails to contribute their.

b. Sitting arrangement— This is a neglected issue in journal club presentation session. Set your arrangement in a circular manner or semicircular manner so that everybody sees each other from any corner. The facilitator, chair person, timekeeper and presenter will place themselves in a position from where every participant can easily communicate with each other. Choose where you are going to take position yourself in the theatre and whether you are going to stand, sit or walk around. Do you wish to be behind a podium or table or nearer , and so more able to make contact with, the audience? Wherever you are, be sure you are near the microphone and that it is at the correct height for you, and of course be sure, you are not obstructing the audience's view of the projector screen.

c. Space—although educational programme of excellence have flourished without the benefit of a dedicated facility, there is no doubt that the latter makes possible a more comfortable and predictable programme of curricular activities. In institutions where small-group teaching methods are used regularly , these group sizes and activities should be considered along with other activities.[7]

d. Record keeping—Record keeping done for different purposes. For educational purposes , as well as for research activities also. A register has been maintained to keep the content coverage as well as future recommendation for weak areas need to cover. Data and other materials should be kept in a suitable place for the scope of creation of future areas.

Formats of Journal club

Journal club in every institute does its own structure. Despite that there should be some common things that overlap the individuality. Moreover, the objectives of journal club should be keep in mind while planning a journal club session. Its better to form a committee for journal club for smooth running of such. The article selection is an important component of journal club and

it should be done well ahead of time. The article can be circulated among the participants and displayed in a front place so that everybody get an opportunity to prepare themselves by studying relevant sources .

While presenting a journal club through PowerPoint presentation over a screen so that audience can follow the talk.

Table-I

Criteria for analysis	
Participants	Number of participants
	Field of participants
Intervention	Group leader
	Preparation(pre-reading)
	Frequency of meeting
	Setting
	Mandatory attendance
	Article choice
	Clinical focus
Format	Original article
	Structured evaluation processes
	Faculty supervised
	Internet based
	Time of day noted
	Formal process
	Food provided
Results	Results reported
	Specific outcomes tested
	Statistical significance

Select a provocative article

Too good choices that you pulled as a result of an encounter with a particular patient and articles that have been published recently dealing with a clinical problem we commonly encounter.

It should report a original research paper which contains all the components of a scientific paper. Review articles are not suitable many a times. And those article which does have a methods section. Meta-analyses, decision analyses and cost-effectiveness analyses are well, but they are harder to assess critically because the results often depend on whether you can trust the authors and underlying assumptions.

Outline of the content of the article

The same sort of learning that allows one to get better at obtaining relevant information from a patient, organizing it, and presenting it to others applies to reading journal articles as well. After using the structure below to review the article yourself, lead the journal club participants through it. Write the main headings once at a time on the board, explain what they mean, and get the participants to fill in the data from the paper. The elements of a study, analogous to the presenting complaints, presenting illness , past illness and so on are:

A. Authors and funding source: This is analogous to the " identifying information and source of history". It's a good idea to start with these items so you don't forget them later. Anyone can search their previous works and able to be mention here.

B. Research question: What is the question this study was designed to answer? Sometimes it helps to picture a clinical situation you'll be better able to handle if the study is valid. Often the last line of the abstract gives the authors answer to the research question.

C. Study design: What type of study is this? Randomized blinded trial? Cohort study? Case-control study? Cross-sectional study? Case series? The presenter must know this and will be able to mention whenever asked in the presentation.

D. Study subjects: Who were in the study included? What are the selection criteria? How were they had been selected. Is there any process of blinding?

E. Study period and place: Study place and period is usually clearly mentioned in any article. But if not mentioned you have to find out it and mention clearly in separate headings.

F. Data collection, editing, processing etc: After formation of questioners does any pretesting done or not? What are the process of data collection , interpretation, editing and formulation performed. Data can be retrieved by various means and they can be calculated thereafter.

G Variables: The variables used in the paper and also their interpretation can be plotted and should be correlated with those of objectives.

H. Results: What did they find? Don't just mention about each and every table and figure. Also you have to mention the lesson behind main findings of those. Make sure you consider not just statistical significance, but the effect size, relative size and odds ratio of each.

I. Conclusion and recommendation: This part not only include the authors write up but also the presenter's recommendations and how the presenting department will utilize those findings in near future.[8]

Discussion:

Discussion after the total presentation should be structured and well controlled. The facilitator should take the whole control of this part and he has to conduct, motivate for participation and engage each participant. That's why it is called "Club" not a seminar. It's a easy task to distribute some of the copy of the article 10 days before, among 10 similar member of the club and ask them to get prepare for contribution in the discussion. You can raise opinion pole or voting on particular issue like a meeting in a cricket or debate club. The co-ordinator can also place a copy of the article in a board in front of club room day before scheduled time so that any interested person can come forward and join. You can use internet for easy access to all of them. Remember, no scientific study is absolutely perfect. When someone suggests possible problem , you need to discuss whether this is something that is really important, and how it would affect the results.[9]

Wrapping Up

The most important part is of course the " bottom line". If you don't utilize the findings of any result, it is futile to run a journal club. Sometimes it is seen that, the delivery of speech from senior persons or dignitary get preference than the actual message of the journal club.[10] This should be avoided.

Importance of Journal club as a teaching-learning process

Question may arise or may not arise as well : Why we should run an effective journal club? Is it just only to fulfill the desire of faculty members or completion of requisition of the pertinent authority ? Or someone may think I will do research work and publish it accordingly, I have to go through that and learn the necessary things through courses or books !

First thing we can consider that it's a teaching-learning process not only for trainee, students or staff but also as a part of faculty development program. Whenever we called it's a faculty development, it means not only a certificate based "one time show" or it is an achievement. Staff development or faculty development activities have been designed to improve teacher effectiveness at all levels of the educational continuum (e,g. undergraduate, postgraduate and continuing medical education and diverse programmes have been offered to healthcare professional in many settings. For running a good journal club, it is important that faculty members are clear about goals and objectives of this program. They have to participate in it actively and provide feedback regularly. Frequently it has been observed that faculty members present in the journal club keep silent listener and whenever talks at last stage , mainly share their personal experiences regarding that topic not the article itself. This is a serious misuse of the effort and faculty should keep an eye on it[11].

Second things we have to consider that it's a good option for developing team building. In journal club we can organize a group, make a team and can provide feedback regarding effective team building. A article can be presented by many student and every part can be distributed among them to discuss, to develop, to collect from other resources and even to answer the question during presentation. Teams are collections of people who must rely on group collaboration if each member is to experience the optimum of success and goal achievement[12]. Each person in a team will be the focal person and should have a chance to read his or her answers to preparatory questions. Each person should have ample time to think, answer and participate in a team.

Journal club presentation can be used as monitoring and evaluation of training of the trainee. Educational evaluation is the systemic appraisal of the quality of teaching and learning. Maintaining log book and time to time evaluation is a good way of appraisal. Journal club presentation and reporting on journal article is a strong tool for such program. One thing that has to be keep in mind is that critical analysis by the faculty members and adequate effective feedback is not an optional things but it's a must do process[13].

Management has been defined as the purposeful and efficient use of resources. So, management of journal

club session is an important opportunity to learn how to run a course, module, center or institution. Participation in journal club by adequate number of student, faculty and guests is an important reflection of management skill of the unit or department. Also the quality of the club is a reflection in such cases[14].

Presentation is an art which must be learnt to a competent degree by all persons who are involved in the process of imparting knowledge, be it to children or adults. When a presenter tries to communicate it is important to have a certain degree of expertise at the subject itself, a grasp of the language and also the ability to communicate[15]. Hearing alone may not create a firm impression on the minds of those involved in learning process. Catering to the other senses, in addition, lends credence to the saying "what I hear I forget, what I see I remember and what I do I learn". Presentation in public places is the ultimate way of learning and it's a real reflective learning. Presentation skill can be best tested in such a way and this opportunity should not misuse by any means[16].

National Goal and Objectives of MBBS course has been designed in Bangladesh in such a way that to produce competent, compassionate, reflective and dedicated health care professional who but at the same time acquire firm basis for future training, service and research at both national and international level. Also they have a commitment to keep their knowledge and skill up-to-date through " Continuous Professional Development ' all through their professional life[17].

Conclusion:

Journal club is an important teaching-learning activity for the trainee. Its also useful to rememorize the research aspects of the faculty and a option for boost up for future researcher. But It should be done in a scientific way and the research aspects should be highlighted in every session.

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Steatocystoma Multiplex of Scortum- Rare Genetic Disorder: A Case Report and Review of Literature

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Summary:

A 25 years old male attended the skin & VD outpatient department of Khulna Medical College Hospital on 16th June, 2013 with complaints of multiple asymptomatic small rounded firm, cystic nodules that are adherent to the overlying skin of scortum. The microscopic examination of the cystic nodules showed the features of steatocystoma multiplex. This disorder, although it is asymptomatic, is a cosmetic threat to the patient. Only a few cases of the patients with an autosomal dominant mutation, who had keratin 17; have been reported. We are reporting here a case of steatocystoma multiplex of scortum in a 25 years old male along with review of literature.

Key words: Steatocystoma multiplex, Genetic disorder.

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Introduction:

Steatocystoma multiplex was first described by Jamieson in 1873, and the term was coined by pringle in 1899[1]. Steatocystoma multiplex is very uncommon genetic disorder which usually begins in adolescence and early adult life[2]. The condition is inherited as an autosomal dominant in many cases[3]. Both sexes are affected equally[4]. The disease presents with multiple asymptomatic firm cystic nodules on the axilla, groin, trunk, scortum and the proximal extremities because of high density of developed pilosebaceous units and is it rarely localised on the face and the scalp[5]. The sternal region is commonly affected in males. According to the sites the disease is subgrouped into the localized, generalized, facial, acral and the suppurative type. Development of Steatocystoma multiplex has been hypothesized to be due to alteration in the structure of keratin17[6]. Steatocystoma also occurs occasionally as a solitary, non-herited tumour in adults, where it is referred to as steatocystoma simplex[7]. Steatocystoma multiplex present with early dome shaped lesion that are translucent and which change to a yellowish colour with age. The puncta are not obvious but the comedeones are an associated featrue[8]. The spontaneous rupture of the cyst, if it occurs, with result in steatocystoma multiplex suppurativum which is characterised by inflammation and scarring which is reminiscent of acne conglobata[9].

Details of steatocystoma multiplex perhaps has not yet been reported in our country. Here a rare genetic disorder with autosomal dominant pattern of inheritance in early adult, diagnosed clinically as eruptive vellus hair cyst or epidermal inclusion cyst is reported.

Case history:

A twenty five years old male attended the skin & VD out patient department of Khulna Medical College Hospital on 16th June,2013 with the complaints of multiple asymptomatic small firm cystic nodule of scortum of eight month duration. The patient came of an average socio-economic background and his general condition was good. On examination, multiple cystic nodules are found that are small in size vary in diameter from 2 to 5 mm. The cystic nodules are moderately firm, round to oval in shape with well defined and smooth surfaced without a punctum. The cystic nodules are adherent to the overlying skin of the scortum. The patient gave a history of similar lesion in his father too. The systemic and the laboratory findings were normal. Sonography revealed multiple nodules which were relatively well marginated and hypoechoic and with a posterior enhancement. Clinically the differential diagnosis of the

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case was either eruptive vellus hair cyst or epidermal inclusion cyst. Then FNAC and biopsy were advised to confirm the diagnosis. On FNAC, an oily material was aspirated. The stained smear revealed some keratinized squamous cell and occasional anucleated squames scattered in a background of amorphous homogenous eosinophilic material.

On histopathological examination, the dermis revealed a cyst lined with flattened startified squamous epithelium without a granular layer and a cellular eosinophilic cuticle over is surface. The lining stratified squamous epithelium has sebaceous gland lobules within and close to it. The cyst wall also showed intricate foldings. After the histopathological confirmation of steatocystoma multiplex, the patient was given oral isotretinoin and advised for radiofrequency probes at the cosmetic sites of the body but the patient declined further surgical treatment.

Morphological & cytological findings:
Gross appearance: Specimen consisted of two nodular pieces of grayish white skin tissue stated to be resected from scortum. The larger one measuring about 2.5X1.6X1.0 cm. It was cystic and firm in consistency. Their surfaces were rough and content occasional hair follicle. The cut surface showed cystic homogenous appearance. Two blocks were made for paraffin embedding.

Microscopic appearance:
Haematoxylene and eosin stained slide prepared from submitted specimen showed epidermis and dermis. The dermis contained a cyst lined with flattened stratified squamous epithellium without a granular layer and with thick homogenous eosinophilic cuticle over it surface. Many flattened sebaceous glandular lobules were present within the cyst wall. The cyst wall also showed intricate foldings.

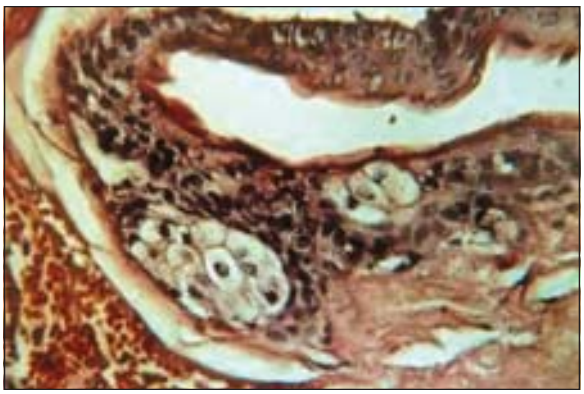

Fig.-1: *Sections show a cyst wall lined with flattened stratified squamous epithelium without a granular layer. Many sebaceous glandular lobules are present within the cyst wall. (H&EX375)*

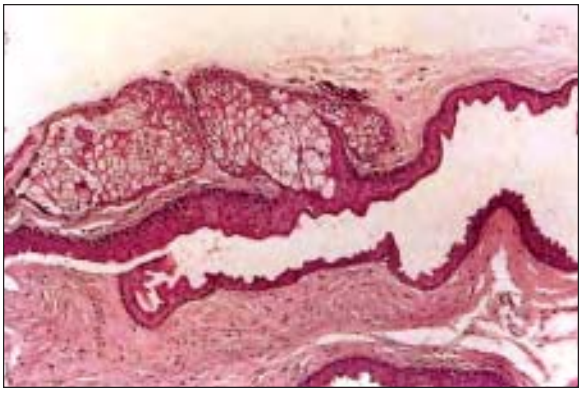

Fig.-2: *Sections show cyst wall having intricate foldings. (H&EX110).*

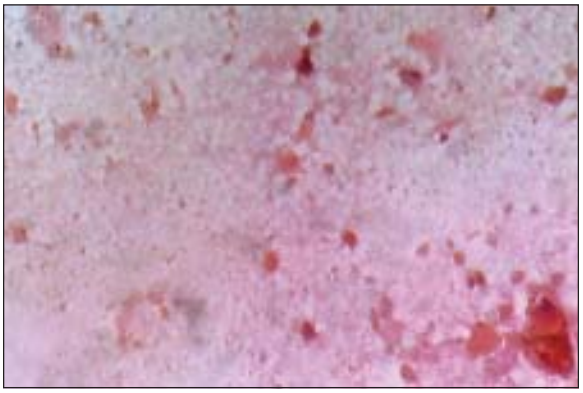

Fig.-3 (FNAC): *Paps stained smear shows some keratinized squamous cells and occasional anucleated squames scattered in a background of amorphous homogeneous eosinophilic material.*

Discussion:
Steatocystoma multiplex is usually appear during adolescence and early adult life and there is no sex predilection. Age of the reported patient was twenty five years which agree with the findings of Mumcuolu CT, Gurel MS, Kiremitci U et al.[10] The patient presented with multiple asymptomatic firm cystic nodule that are adherent to the overlying skin of the scortum. These features agree with the findings of Hemlata TK, Pradeep AG, Ajay GO, et al.[11] The exact origin of the cyst is still unknown but multiple theories which suggest their

origin are: they result from sebaceous retention cyst of a naevoid nature or they are hamartomas or they are a variety of dermoid cyst. Few authors have associated steatocystoma multiplex with ichithyosis and koilonychias, Pachyonychia congenital, acrokeratosis verruciformis of hopf, hypertrophic lichen planus hypohidrosis, hypothyroidism, hidradenitis suppurativa and hypotrichosis.[13]

The familial steatocystoma multiplex is associated with a mutation in the keratin 17 gene, in the areas which are identical to the mutation which are found in patients with pachyonychia congenita type-2 (PC-2).[14] Uptil now in patients with either steatocystoma multiplex or pachyonychia congenita type-2, 14 mutation have been discovered, all of which are localized to the helix initiation domain (IA domain) of the K17 gene. The KRT_{17} gene is located on the long arm of chormosome 17, between positions 12 and 21 and the mutations in this gene interfere with the assembly of the keratin intermediate filament network.[15] Smith FJD have reported heterozygous missense mutations in K17 in two families who were diagnosed as steatocystoma multiplex.[16]

In our case, the patient had no features of pachyonychia congenita type-2 such as hypertrophic nail dystrophy, focal keratoderma and multiple pilosebaceous cyst. The relationship of steatocystoma multiplex to the development of sebaceous glands and its common presentation at puberty suggest a hormonal trigger for the lesion growth.[17] The patterns of keratin 10 (K10) and keratin 17 (K17) expression are also variable in the epidermoid cysts, the trichilemmal cysts, eruptive vellus hair cysts and in steatocystoma multiplex. The epidermoid cysts expressed K10 and the eruptive vellus hair cyst and in steatocystoma multiplex. The epidermoid cyst expressed K10 and the eruptive vellus hair cysts expressed K17, whereas trichilemmal cysts and steatocystoma multiplex showed the expression of both K10 and K17.[18]

On Electron microscopy, steatocystoma multiplex has been found to be a nevoid sebaceous duct and a sebaceous gland tumour. There is one pilary unit which continuously produces the vellus hairs, which are trapped in the cystic cavity or in the pilary cannal (tricostasis). Steatocystoma multiplex is connected to the epidermis by a straight or meandering epithelial cord, the remnant of the follicular infundibulum which is a solid strand which contains sebocytes or sebaceous lobule like structure. A lumen which is partly present in a few areas of the cord, is filled with cellular debris of the keratinocytes, corneocytes, sebocytes or the trapped hairs.[19] In comparison, the trichilemmal cysts take their origin from the outer root sheath of the follicle, the epidermal cysts take their origin from the infundibulum and the vellus hair shafts take their origin from the infundibuloisthmic junction or the isthmus.[20]

The diagnosis should always be confirmed on histopathology excluding its main differential diagnosis like eruptive vellus hair cyst, epidermal inclusion cyst, milia, trichilemmal cyst and the tumours of the follicular infundibulum. Steatocystomas and vellus hair cysts are closely related to each other. Cases have been published with cysts showing the features of both steatocystoma multiplex and eruptive vellus hair cysts, which are caused by a cystic change in the same pilosebaceous duct.[21] Eruptive vellus hair cyst show dermal cysts which are lined by stratified squamous epithelium with a granular layer and which contain many obliquely, transversely sectioned vellus hair shafts. The microscopic examination of the expressed contents in a potassium hydroxide preparation shows numerous vellus hairs in the eruptive vellus hair cysts. Generally, no sebaceous glands are present in the cyst wall. The epidermoid cysts are lined with stratified squamous epithelium which contains a granular layer and they show laminated keratin inside the lumen of the cysts. Milia show very small cysts. The milium is usually located in the superficial dermis and it has an epithelial lining with a granular cell layer. It contains laminated keratin: Tumours of the follicular infundibulum show a plate like dermal tumour with anastomosing islands and cords with connections to the overlying epidermis and the horn cysts. The trichilemmal cysts are lined by squamous epithelium without a granular layer and with the swelling of the cells close to the cyst cavity, which is filled with homogenous keratin. But the characteristic histopathological findings of steatocystoma is the presence of sebaceous lobules close to the cystic wall, which is lined by stratified squamous epithelium without a granular layer, though there may be scanty vellus hairs in the cystic cavity.

The various modalities in the treatment of steatocystoma multiplex include surgery, Co_2 laser

therapy, oral isotretinnoin and cryotherapy, but the recent procedures include the use of radiofrequency incision probe to make mini incisions and for expressing the contents of cyst even the cyst wall. It has the advantage of producing blood less field which can not be obtained by surgical blades[22] and the other advantages are the treatment with the Erybium: YAG laser followed by topical tetracycline ointment which also have shown good cosmetic result.[23]

In conclusion, Pachyonychia congenita type-2 and the eruptive vellus hair cyst are closely related to steatocystoma multiplex. Therefore a histopathological confirmation is a must before starting with any treatment. The genetic chromosomal abnormalities and mutations should be detected and long term follow up should be taken up in such patient for further research on this disease.

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Jarcho-Levin Syndrome – A Case Report

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Summary:

Jarcho- Levin Syndrome is an eponym that represents a spectrum of short trunk skeletal dysplasia with variable involvement of the vertebrae and ribs. Initialy considered to be lethal, it is now accepted as compatible with life in its milder presentations. Neural tube defect is a rare association in Jarcho-Levin Syndrome. Here we report a case of Jarcho-Levin Syndrome with meningomyelocele in a newborn.

Key words: Jarcho-Levin Syndrome, Spondylo- thoracic dysplasia; Spondylo- costal dysplasia; Short trunk dwarfism, Meningomyelocele.

(J Banagladesh Coll Phys Surg 2015; 33: 222-224)

Introduction:

Jarcho and Levin described a disorder of vertebral and costal anomalies in 1938 as Jarcho- Levin Syndrome[1]. There are two subtypes. One is Spondylo-thoracic dysplasia (STD) which suggests predominant vertebral defects and another is Spondylo- costal dysplasia (SCD) that describes the variant with vertebral and costal anomalies[2].This disorder comprises short trunk, prominent occiput, crab like rib cage associated with multiple vertebral defects and ribs that flare in a fan like pattern. Short neck, low posterior hair line, protruded abdomen with normal limbs, pectus carinatum are other anomalies. Occasional abnormalities may be cleft palate, hydronephrosis with ureteral obstruction, anal atresia and neural tube defects (33%).The purpose of reporting this case is to bring to clinical understanding of this rare disorder and review the emerging current knowledge about it.

Case Report:

A female term newborn 8 hour old presented with a swelling on the lower part of the back since birth. Mother Roksana, 38 year old, had irregular antenatal check up with good antenatal health according to her. Prenatal ultrasound was not done. Baby was delivered normally and cried immediately after birth. Her weight was 3 kg. Occipitofrontal circumference was 36 cm, length was 46 cm. Her neck and trunk was short and pectus carinatum was obvious (Fig.1). Vital signs were normal though chest cage was abnormal. Reflexes were good. The swelling was over the lumbar region of the back, covered with skin, cystic in consistency measuring 1.5 cm, nontender. Lower limbs were of normal length with active movements. There was no problem with bowel and bladder.

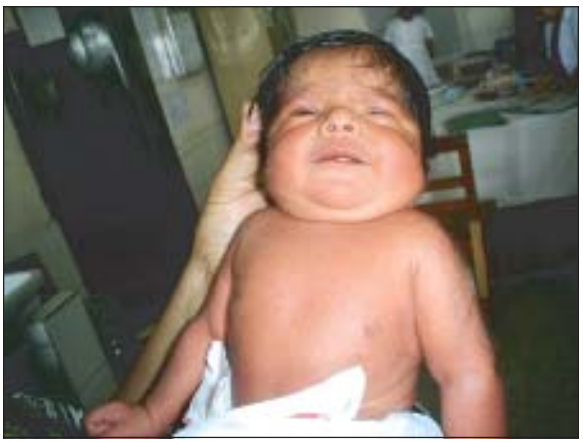

Fig.-1: *Showing short neck and pectus carinatum*

We consulted with the department of Neurosurgery of our medical college hospital regarding the swelling on the back; the neurosurgeon diagnosed this as meningomyelocele(Fig.2) and advised her to come for follow up visit after three months as the functions of the lower limbs were normal and there was no complain regarding bowel and bladder habits. The babygram revealed the classical radiological features of STD like pebbled beach appearance of the vertebrae and posterior fusion of the ribs, multiple hemivertebrae, fused vertebrae and abnormal rib cage (Fig. 3).

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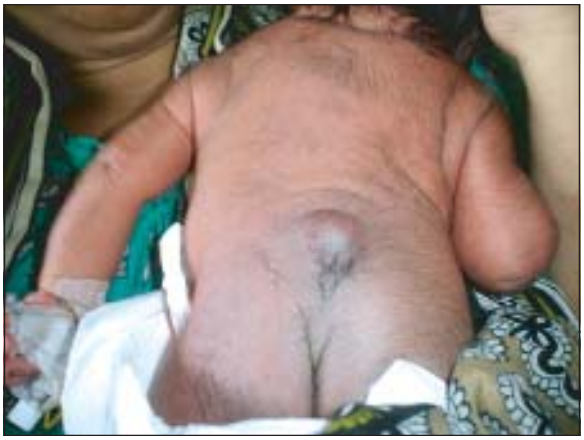

Fig.-2: *Showing meningomyelocele on the lumbosacral region of the patient*

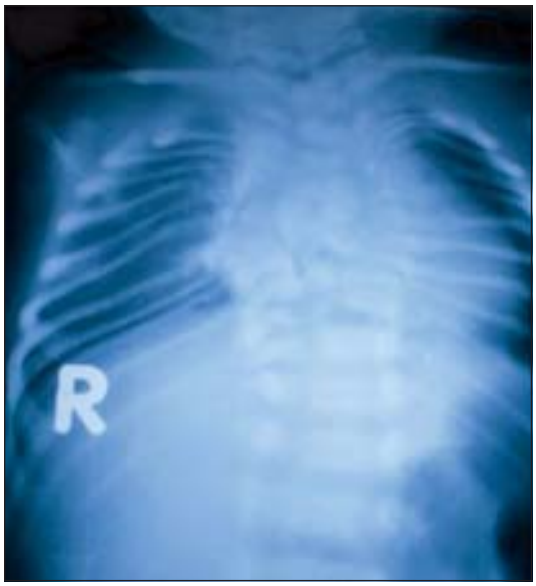

Fig.-3: *X-ray chest showing pebbled beach appearance of the vertebrae and posterior fusion of the ribs and multiple hemi vertebrae*

Finally we discharged the patient on request with the advice of consulting outpatient department of Orthopedics as soon as possible

Discussion:

Jarcho-Levin syndrome is a type of short trunk skeletal dysplasia with vertebral and rib anomalies. About 400 cases have been described in the world literature. It has both autosomal dominant and recessive modes of inheritance. The vertebral anomalies seen are hemi vertebrae, absent vertebrae, fused vertebrae, wedge vertebrae, sickle shaped vertebrae due to segmentation and formation defects [3-5]. (pebbled beach appearance). The costal defects noted are crab like or fan like appearances of the thorax due to crowded ribs, posterior fusion of the ribs and absent, irregular or bifid ribs.

This disorder has been noted in both consanguineous and non-consanguineous families. Most cases reported followed a pattern of autosomal recessive inheritance.

The case that we are presenting here has characteristic clinicoradiological features of Jarcho-levin syndrome with associated neurological abnormality like neural tube defect (Meningomyelocele). Neurological anomalies , such as neural tube defects and hydrocephalus are uncommon [6]. Solomon et al. [2] classified Jarcho-levin syndrome into 2 clinical phenotypes based on the extent and distribution of skeletal anomalies, the pattern of inheritance and the prognosis.

STD is an autosomal recessive disorder with posterior symmetric fusion of all the ribs at the costovertebral joints bilaterally and segmentation and formation defects of the vertebrae throughout the spine giving a classical 'crab like` or' fan like` appearance to the thorax. The ribs themselves had no defects. In STD neonatal death or death in infancy may occur due to pneumonias, restrictive lung disease.

SCD may be inherited in both autosomal dominant and recessive forms. Intrinsic rib anomalies like broadening, bifurcation and asymmetrical fusion are noted. The survival rate in SCD is high after the age of six months [7].Patients with SCD are known to have mutations in the delta-like 3 (DLL3) gene on chromosome 19.[8,9] .Patients with STD have no mutations in the DLL3 gene. Bannykh et al.[10] analysed protein expression from PAX1 and PAX9 genes in 2 sibs with this syndrome and compared it with age matched controls. Immunochemical analysis showed a significant reduction in the levels of protein expression on chondrocytes of the vertebral column.

Prenatal diagnosis by ultrasound can be done as early as 16 weeks of gestation after conception. Ultrasound criteria for diagnosis are unpaired or poorly formed vertebrae, indistinct or fused posterior ribs, irregular pebble like appearance of the spine, short trunk, protuberant abdomen, hernias and normal limb length[11].

Counseling the affected family is not a simple task because of varied presentation and striking intrafamilial variability. The exact clinicoradiological with molecular diagnosis is essential for accurate genetic counseling and prognostication of individual case.

Management should aim at aggressive neonatal care. Surgery of the spine to improve the thoracic volume and hence decrease the pulmonary restriction has been tried.

Conclusion:

Jarcho- Levin syndrome was considered initially lethal but it is now considered to be compatible with life in its milder presentation. So correct diagnosis and management can help both the affected newborn and the family by updated knowledge about this syndrome.

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Retroperitoneal Schwannoma: A Case Report and Review of the Literature

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Summary:

A 45 years old woman admitted to our Hospital with pain in the right flank and right hypochondrium. Her abdominal USG and CT scan showed a large complex cystic mass present in the deep soft tissue compressing the right kidney. Multiple gall bladder stones were also found in imaging. Both the adrenal glands and left kidney had a normal appearance. The mass was completely resected with extended right subcostal incision along with excision of Gall bladder.

Histopathological examination of the specimen revealed a degenerated schwannoma. Patient was discharged on 8th day after operation without any complications.

Key words: Retroperitoneal Schwannoma, Flank pain.

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Introduction:

Schwannoma is also called neurilemmoma, is a tumor originating from the Schwann's cells derived from the neuroectoderm. In 1980, Verocay reported for the first time a tumor that occurred in the neurons histologically[1]. Masson has described that these tumors arise from Schwann's cells and are termed as schwannoma[2].

Most schwannomas are benign, though malignant schwannomas are usually seen associated with Von Recklinghausen's disease[3]. The majority of the schwannomas arise from Schwann cells of peripheral nerve fibers and are usually located in the head, neck and flexore surface of the extremities, but rarely they can arise from mediastinum and retroperitoneum[4,5,6,7]. Urinary tract is seldom involved, most commonly testis, penis, spermatic cord, and tunica vaginalis[8,9,10]. The majority of retroperitoneal schwannomas are benign in nature although malignant ones have also been reported. Most common presentation of the retroperitoneal schwannoma is abdominal distention with vague or dull abdominal ache[4,10].

We report on a case with benign retroperitoneal schwannoma and describe the diagnostic and management options.

Case Reports:

A 45 years old woman was admitted with pain and a palpable mass in her right flank. She had no history of fever, weight loss or anorexia. On abdominal examination, a large retroperitoneal lump measuring about 15cm x 10cm was found in the right hypochondriac region extending into the right lumber region with a smooth surface, firm in consistency and non palsatile. Examination of other systems and routine laboratory parameter were within normal limits.

Ultrasonography (USG) showed a well define complex cystic mass in the right retroperitoneal region pushing the right kidney anteriorly and medially. An incidental findings of cholelithiasis was also found. There was multiple small bright echogenic structure in the gall bladder. Intrahepatic and extrahepatic biliary try was not dilated.

Computed tomography scan(CT scan) showed a sharply demarcated hypodense mass located just lateral and posterior to the right kidney. (Fig.-1)

In preoperative period we did not take CT guided biopsy, because we don't have this facilities in our institution and patient was unable due to poor economic condition and possibility of adrenal tumor kept in mind. The patient was worked up for surgery.

Abdomen was opened with extended right subcostal incision, the abdomen was explored. Cholelithiasis was found and cholecystectomy was done.

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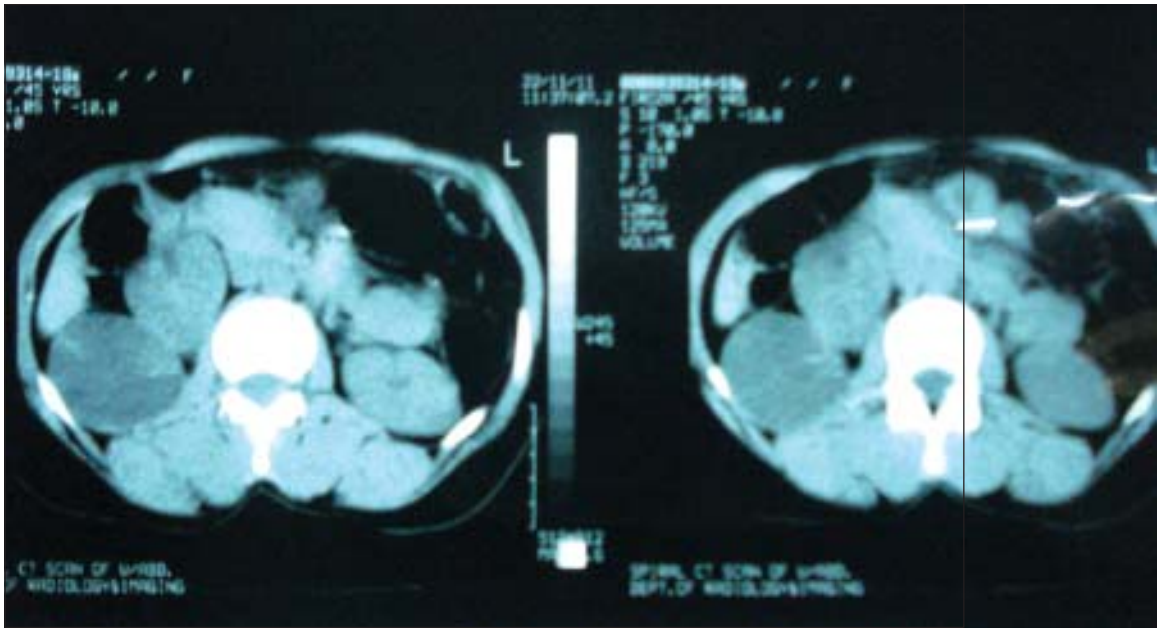

Fig.-1: *Owing to the location of tumor the presumptive diagnosis was a neurogenic or fibrous tumor.*

The right colon and right kidney was mobilized and 15cmx10cm in diameter mass was found. The mass was localized above the right psoas muscle and posteroinferior to the right kidney. The mass was completely resected and send for histopathology. Her post operative period was uneventful and the patient was discharged symptom free. The pathology report concluded the final diagnosis as degenerated schwannoma. Post operative follow up of 3 months has shown patient to be disease free clinically and on ultrasonographycally.

Discussion:

Schwannomas are usually benign tumors arising from the schwann cells of the peripheral nerve sheath[11]. These neoplasms are usually seen in adult population between the ages of 20 and 50 with a male/Female ratioof 2:3[7]. Symptomatology of benign schwannomas is highly nonspecific and depends on the location and size of the lesion.

Retroperitoneal region is a rare location for schwannomas except in patients having Von Recklinghausen's disease. It is also noteworthy to mention that malignant degeneration particularly takes place in association with Von Recklinghausen's disease. In general, since the retroperitoneal space is rather large and flexible, the diagnosis of retroperitoneal schwannomas is often delayed, and the lesion reaches a significant size at the time of diagnosis usually more than 8cm in diameter as seen in our cases. The most common symptoms are abdominal pain and distention. Depending on the location of the lesions, a variety of symptoms such as secondary hypertension, hematuria, and renal colic have also been reported[12,13].

The differential diagnosis for retroperitoneal schwannomas includes other neurogenic tumors such as paraganglioma and pheochromacytoma as well as, liposarcoma and malignant fibrous histiocytoma. In addition to those, if the retroperitoneal schwannoma contains considerable amount of cystic degeneration, retroperitoneal cystic masses such as hematoma and lymphangioma should also be included in the diagnostic checklist[14].

Although rare, malignant counterparts of schwannomas also exist. Detection of a malignant schwannoma is highly important, since it will affect the treatment strategy. From the radiologist's point of view, malignant schwannomas have irregular contour and tend to show invasion to the adjacent structures. Macroscopically, schwannomas are solitary, well circumscribed, firm, smooth-surfaced tumors. Because of their large size, these tumors are likely to manifest degenerative changes such as cysts and calcification[15]. The retroperitoneal lesion in our patient had regular borders without any sign of adjacent organ invasion, which were highly suggestive of a benign lesion radiologically.

Most schwannomas are benign and malignant degeneration of schwannomas is extremely rare. Malignant degeneration particularly occurs is association with Von Recklinghausen's disease, as occurs in 5% to 18% of cases[16]. To date, no standard diagnostic criteria or radiologic feature of malignant schwannomas have been described. Malignant schwannomas are commonly larger in size and they act as high-grade sarcomas with the possibility of producing local recurrence and distant metastasis. Typically, malignant schwannomas are diagnosed histopatologically after the surgical excision of a mass, with features of high mitotic rate, pleomorphism, and blood vessel invasion[17].

Appropriate radiological evaluation is important both for diagnosis and management. Computed tomography typically shows well-defined mass with low or mixed attenuation and cystic and/or necrotic central areas. Cystic changes occur more commonly in retroperitoneal schwannomas (up to 66%) than in other retroperitoneal tumors[18]. Other degenerative changes, such as calcification and hemorrhage can be seen on CT. On MRI, schwannomas are seen as masses of low signal intensity on T1-weighted images and high signal intensity on T2-weighted images[12,19]. However these radiologic findings are characteristic but not specific of schwannomas and was noted in only 57% of the cases[12]. Depending on the cell density, the signal intensity on T2-weighted images may vary. CT-guided core biopsy and fine needle aspiration are not sufficient for the diagnosis of retroperitoneal schwannoma[17]. Degenerated areas can hinder the correct diagnosis and malignancy may be missed because of cellular pleomorphism and the presence of degenerative cells. Additionally, these procedures have the risks of hemorrhage, infection, and tumor seeding. Thus, many authors do not recommend CT-guided biopsy[5,20].

Treatment depends solely on surgery.. Since local recurrence rate ranges from 16% to 54% after conservative approach, sacrifice of adjacent tissues and viscera may be considered for complete surgical excision[1,5]. Dominguez et al.[7] have reported recurrence in 16% in partial resection. Abernathey et al. did not approve partial resection of the tumor because of the consideration of local recurrence[2]. Giglio et al. proposed that even if the tumor were determined to be benign using frozen biopsy, the possibility of malignancy can not be excluded accurately[10].

On the other hand, some authors believe that a simple enucleation or partial excision of the tumor is sufficient. Because the benign nature of the disease, no increase in the size of schwannoma during a 6- and 14-year period and have been reported[21]. Is the size of the residual tumor after surgery the greatest factor that influence on the recurrence of schwannoma. Therefore, maximal removal as completely as possible of the operable part of tumor without severe hemorrhage and anticipated neurological injury level after surgery are two factors considered during the surgery[8,10,16,17,22].

There are a few reported cases in which metastases occurred after resection of a histologically benign schwannoma[19,25,23]. The prognosis for retroperitoneal benign schwannoma is good. On the other hand, in malignant cases, extraction of the tumor and adjuvant radiation therapy or chemotherapy are required, and even in cases in which the appropriate treatments are administered, prognosis is poor, and it has been reported in one series that 62% of patients died. Furthermore in malignant schwannoma if extraction is insufficient local recurrence rate is high. White has reported that 60% died within 2 months, and Ghosh et al. have reported that in cases with a single lesion, the 5-year survival rate is 72.5%, and in cases concomitant with von Recklinghausen's disease the 5-year survival rate is 30%[9,14,24,25]. Single therapy modality of malignant schwannomas has shown poor results.

Conclusion:

Retroperitoneal schwannoma is a rare type of retroperitoneal tomor often present as slow growing masses with difficult preoperative diagnosis. Surgery is the choice of treatment with a potential risk of severe bleeding and neurological deficit. Therefore careful preoperative evaluation and post operative monitoring is necessary.

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Femoral Hypoplasia-Unusual Facies Syndrome: A Case Report

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Summary:

The femoral hypoplasia-unusual facies syndrome (FH-UFS) is a very rare association of femoral and facial abnormalities. We report a 19 days old male baby with bilateral femoral hypoplasia and cranio-facial dysmorphism including low set ears, upslanted palpebral fissures, long philtrum with thin upper lip, micrognathia, hypoplastic alae nasi, short broad tipped nose, and cleft palate. Tongue tie was also present as an additional feature.

Key words: Femoral hypoplasia-unusual facies syndrome, case report, Rare disease.

(J Banagladesh Coll Phys Surg 2015; 33: 229-231)

Introduction:

The femoral hypoplasia-unusual facies syndrome (FH-UFS) is a very rare association of femoral and facial abnormalities. It encompasses a spectrum of anomalies that include bilateral femoral hypoplasia/ aplasia and cranio-facial dysmorphism with cleft palate[1,2]. The first case of FH-UFS was reported by Franz and O"Rahilly in 1961, but it was not recognized as a distinct entity until 1975 when Daentl et al reported their cases [3]. This syndrome is also known as femoral facial syndrome. Etio-pathogenesis of the syndrome remains unknown but some authors reported a link to maternal diabetes mellitus [4,5]. Most cases have been found sporadic [4,5]. There have been rare reports (three cases) describing a family with more than one affected member [6,7]. Here we described a 19 days old male baby with many features of FH-UFS who was admitted into the neonatal unit of Sylhet MAG Osmani Medical College Hospital.

Case Report:

The 19 days old male baby hailing from Sunamgonj was admitted with the complaint of abnormality in both lower limbs. The mother was 21 year old. The baby was the second child of healthy non-consanguinous parents. The first sibling was a normal full term baby, delivered by vaginal route, now 2 year old. The mother was on regular antenatal check up and had no history of gestational diabetes or any other significant illness during pregnancy. She also had no history of taking any teratogenic drug. The baby had a history of mild perinatal asphyxia after normal vaginal delivery at 36 weeks of gestation. The birth weight of the baby was 1600 gram, length 38 cm, occipito-frontal circumference 31cm and upper segment lower segment ratio was 2.45:1. Clinical findings include craniofacial dysmorphism like low set ears, upslanted palpebral fissures, long philtrum with thin upper lip, micrognathia, hypoplastic alae nasi, short broad tipped nose, (Fig-1) and cleft palate (Fig-2).

Fig.-1: *Craniofacial dysmorphism*

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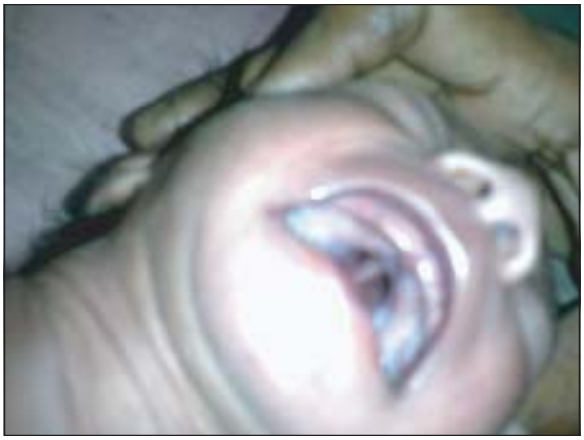

Fig.-2: *Cleft palate*

Tongue tie was also present. Upper limbs showed flexion deformity of both elbow with skin dimpling. Both thighs looked laterally rotated. Length of the thighs was very short compared to leg length, knee joint being rudimentary. There was spina bifida at the sacral region (Fig-3).

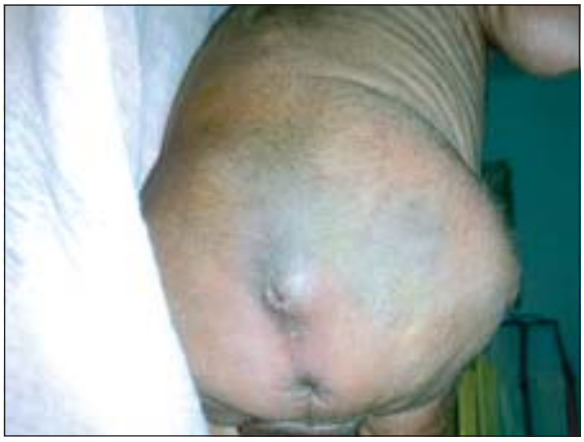

Fig.-3: *Spina bifida*

There were no clinically detectable cardiac or renal abnormalities.

X-ray of both lower limbs including the hip revealed bilateral femoral hypoplasia with dysplastic pelvis (Fig-4). X-ray of upper limbs showed no bony abnormality. Echocardiography revealed no cardiac anomaly and USG of genito-urinary system was normal. With these above mentioned clinical and radiological findings, the baby was diagnosed as a case of FH-UFS.

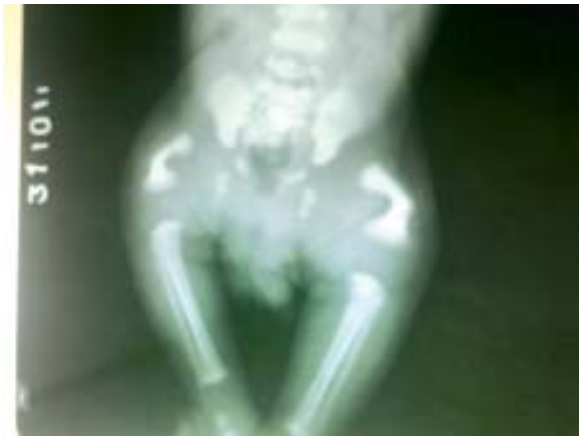

Fig.-4: *X-ray showing femoral hypoplasia with dysplastic pelvis.*

Discussion:

In 1975, Daentl et al delineate a distinctive pattern of malformation which includes femoral hypoplasia and unusual facies in four unrelated individuals[2,3]. This disorder consists of hypoplasia or absence of the femurs bilaterally and distinguishing facial characteristics of a short nose with a broad tip, elongated philtrum, thin upper lip, cleft palate and micrognathia [2-4]. Many other associated abnormalities have been described which includes short or absent fibulas, clubfeet, shortening of humeri, restricted motion of elbows, constricted ilial base, vertical ischial axis, hypoplastic acetabulae, large obturator foramina, lower spine abnormalities and posterior tapering of the ribs[1-5]. Aside from skeletal anomalies, these infants may have cardiac and genitourinary anomalies[8]. The present case fits into the classical clinical spectrum of FH-UFS. Among the associated anomalies the baby had spina bifida at the sacral region. The baby also had tongue tie which is not reported as a feature of FH-UFS previously.

The exact etiology and pathogenesis of this disorder is unknown. Burn et al[1] described three groups of FH-UFS: (a) cases secondary to fetal constraint or deformation, (b) cases resulting from maternal diabetes and (c) disruption and those of unknown etiology. The possible teratogenic potential of maternal diabetes has been ruled out in this case. There was no history of significant illness or taking any offending drug during pregnancy.

FH-UFS has many overlapping features with caudal regression syndrome which represents a continuum of

malformations ranging from agenesis of the lumbosacral spine to sirenomelia. But cranio-facial anomalies are always absent in caudal regression syndrome[9]. The presences of characteristic facial defects have sharply contrasted this case of FH-UFS from caudal regression syndrome or sirenomelia.

FH-UFS affected infants have normal to above normal intelligence[2-4]. Most complications arise from small stature and limited function of the lower limbs[3], but most patients are ambulatory[5]. Problems with feeding and speech development may also arise due to facial anomalies[4,5]. Other complications like recurrent urinary tract infection and incontinence have also been reported[4]. However, in cases without serious complications, the life span is usually normal[2-4].

Before viability the option of pregnancy termination can be offered to the parents. The postnatal management is directed at the orthopedic, facial, cardiac and genitourinary complications.

Conclusion:

Though the prevalence of femoral hypoplasia-unusual facies syndrome is very rare, prenatal diagnosis is very important to offer the parents for termination of pregnancy. Early diagnosis at the neonatal period is necessary for orthopedic intervention and also for correction of other complications.

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A 68 years Old Man with Compressive Chest Pain and Breathlessness

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(J Banagladesh Coll Phys Surg 2015; 33: 232-234)

A 65 year old Bangladeshi male presented with compressive chest pain and respiratory distress for 2 days. He had hoarseness of voice and breathlessness for 1 year. He was hypertensive, diabetic and dyslipidaemic, and had a past history of ischaemic.

Physical examination revealed a pulse rate of 92/min, blood pressure (BP) of 130/100mmHg, unremarkable praeordial and lung auscultation. ECG showed right bundle branch block. Troponin I and NTPro-BNP were normal. Echocardiogram revealed concentric LV hypertrophy with normal LV systolic dysfunction, and grade I diastolic dysfunction. Chest X ray showed widened mediastinum with prominent aortic knob (Fig.-1).

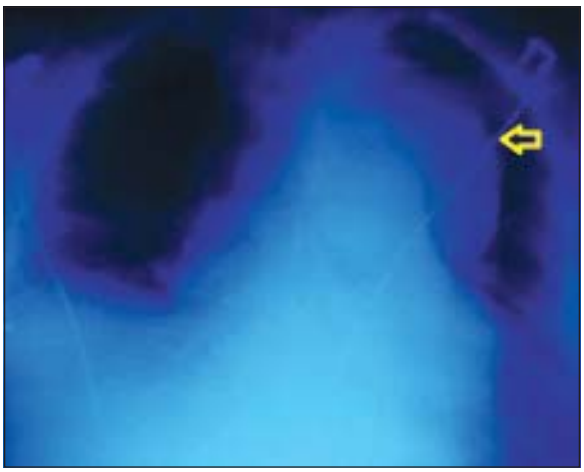

Fig.-1: *Chest X ray AP view showing widened mediastinum with prominent aortic knob.*

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c. Nusrat Ghafoor, Department of Radiology & Imaging, Ibrahim Cardiac Hospital & Research Institute, Dhaka.

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CT aortography showed a large saccular dilatation of the arch of aorta (Fig.-2) distal to the left subclavian artery measuring 8.3cm transversely with mural thrombus. Another focal fusiform dilatation of proximal thoracic aorta measuring about 6.9cm at maximum was seen, with eccentric mural thrombus leaving a patent lumen of ~2.7cm. Fusiform diataion was also seen in the abdominal aorta (Fig.-3). No dissection seen. Extensive workups for thrombophilia were negative.

He was given beta blockers and ACE inhibitor for BP control, aspirin, and statin, in line with ACCF/AHA recommendations[1]. Given the mural thrombus, he was treated with enoxaparin, and discharged on warfarin. He was offered thoracic endovascular repair of aneurysm (TEVAR) or open surgical repair of thoracic aortic aneurysm (TAA).

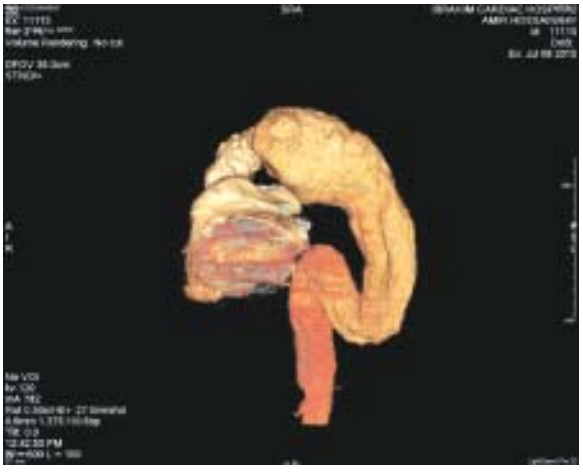
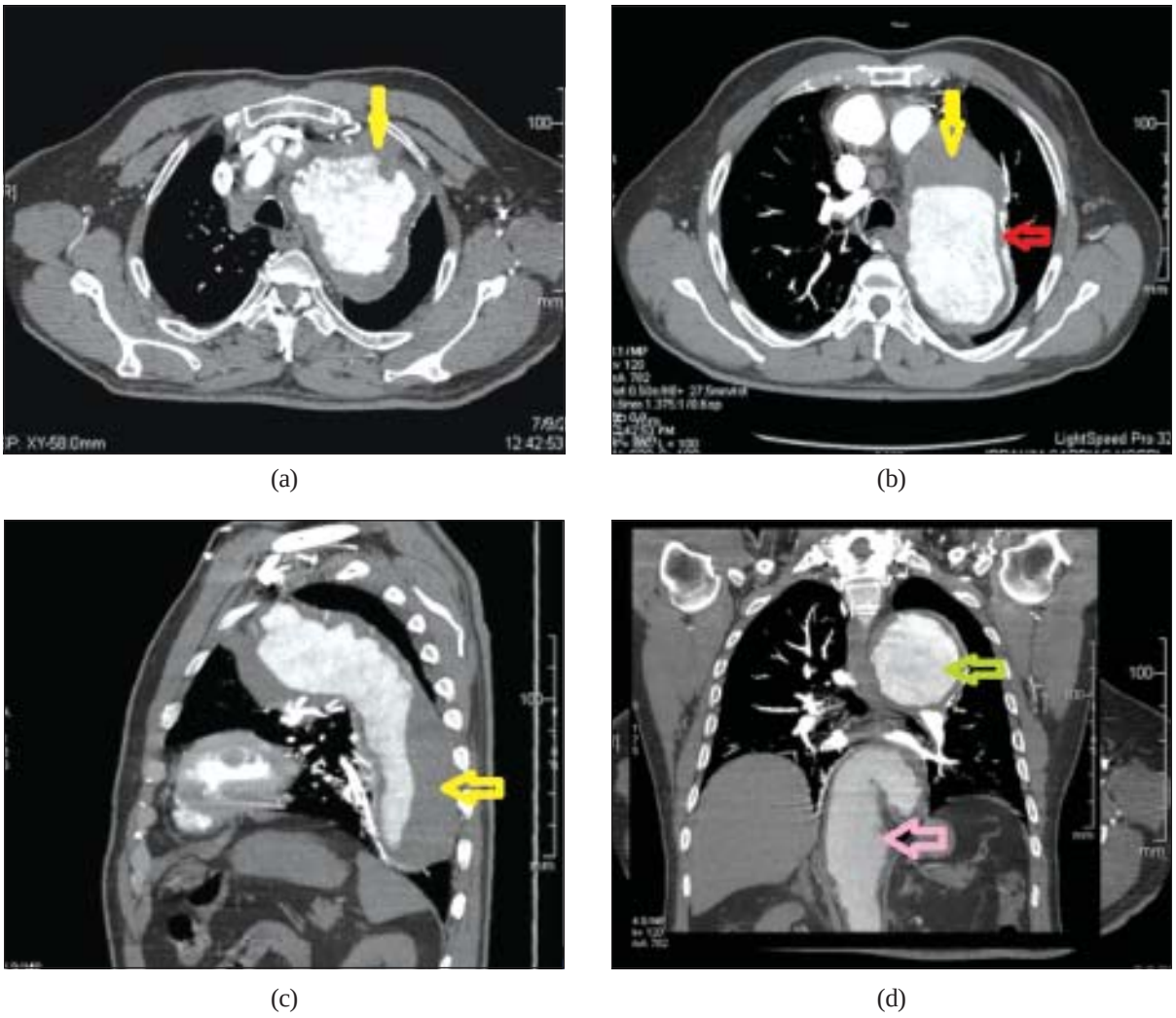


Fig.-2: *CT aortography image showing large saccular dilatation of the arch of aorta and focal fusiform dilatations of descending thoracic and abdominal aortae.*



(a) (b)

(c) (d)

Fig.-3: *CT scan of chest (a) : Axial plane: Ascending aortic aneurysm showing filling defect (yellow arrow) denoting thrombus. (b): Axial plane: Descending TAA (red arrow) with thrombus (yellow arrow). (c): sagittal plane: descending TAA showing thrombus (yellow arrow). (d): coronal plane showing ascending aortic aneurysm (green arrow) and descending TAA and abdominal aortic aneurysms (pink arrow).*

Discussion:

An aortic aneurysm is diagnosed when the ascending aorta is larger than 5 cm and the descending aorta is larger than 4 cm[2]. Aortic root or ascending aortic aneurysms (~60%) are the most common TAA, followed by descending aorta (35-40 %) and aortic arch (<10%) [2,3]. Thoracoabdominal aneurysms constitute approximately 3% of all aortic aneurysms and are usually diffuse and atherosclerotic in nature[3]. Atherosclerosis is the overall most common cause of aneurysm, accounting for 70%[2]. In contrast to the ascending aorta, the majority of descending TAAs are atherosclerotic[2,3]. Most of them present in the sixth and seventh decades of life, with a male predominance, and involvement of abdominal aorta in one-third of patients[2].

The most likely aetiology in this case was atherosclerosis, as for most descending TAA, compounded by risk factors of smoking, hypertension, and older age[4]. Descending TAAs are typically fusiform, often begin distal to the origin of the left subclavian artery[3] and coexist with abdominal or arch aneurysms[3].

Most TAA and abdominal aortic aneurysms are clinically silent, with the aneurysm discovered incidentally on

chest radiography, echocardiography, CT or MRI[4]. Alternatively, rupture may constitute the first manifestation[3]. 5%-10% of patients experience symptoms, such as chest or back pain. Aortic arch or descending TAAs may also produce hoarseness of voice ("dysphagia lusoria") from compression of the recurrent laryngeal nerve[3].

Atherosclerotic aneurysms are commonly associated with mural thrombosis, posing the additional risk of systemic embolization, causing occlusion of distal vessels[3-6]. Other serious complications of TAA are dissection and rupture.

Most TAAs are evident on chest radiographs[3,4] but chest X rays cannot exclude their diagnosis. Trans thoracic echocardiography may not thoroughly characterise arch and descending TAA. Transoesophageal echocardiography can usually image most of the aorta[4]. However, the best imaging modality for TAA is Computed tomography (CT) or magnetic Resonance Imaging (MRI). It has several advantages, including rapid scan times, wider availability and the ability to image the three-dimensional structure of the aorta along its entire course[1-3]. Furthermore CT angiography and contrast-enhanced MRI are highly accurate in the evaluation and follow up of patients undergoing endovascular TAA therapy, and are also preferred over aortography in most cases[3].

The optimal management of TAA mural thrombi has not been clearly established and is influenced by the localisation of the thrombus and patient co-morbidities. Therapeutic strategies include anticoagulation, thrombolysis, interventional modalities such as thromboaspiration, or balloon-catheter thrombectomy, and open surgical procedures such as thrombectomy, thromboendarterectomy, and aortic prosthetic replacement[7]. Strict control of hypertension (target goal <130/80mmHg in diabetics), optimization of lipid profile with statins (target LDL <70mg/dL), smoking cessation and glycaemic control should be instituted. Beta-blockers and ACE inhibitors or Angiotensin receptor blockers are recommended anti-hypertensive choices (class IIa)[1].

Intervention is recommended at larger diameters for aneurysms of the descending aorta[1]. Symptomatic aortic aneurysms at any level should be resected regardless of size. Modalities include open surgical repair (OSR) or Thoracic Endovascular aneurysm repair (TEVAR). TEVAR is a far less invasive alternative to OSR of descending TAAs, with lower morbidity and mortality rates, provided the aortic anatomy has adequate landing zones to accommodate the endograft[1,8]. Long term surveillance of the aorta with imaging is imperative, with re-evaulation at 6 months after discovery of the aneurysm to document its stability. For degenerative TAAs bi-annual imaging is recommended for aneurysms between 4.5 to 5.4cm, and annual if 3.5-4.4cm[4].

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LETTER TO THE EDITOR

(J Banagladesh Coll Phys Surg 2015; 33: 235-236)

To

Editor-in-Chief

Journal of Bangladesh College of Physicians and Surgeons.

Sir,

I would like to thank you for publishing the article " Haemophagocytic Lymphohistiocytosis in Adult- A Case Report and Literature Review" in your journal . I have gone through it and appreciate the authors for reporting on such a rare and important case. I would like to share some of my observations and comments regarding this case.

Secondary haemophagocytic lymphohistiocytosis (HLH) occurs after strong immunologic activation which can occur with systemic infection, immunodeficiency or underlying malignancy. Epstein-Barr virus infection is most common one linked with HLH. Patient with dengue fever can sometimes develops unusual manifestation in the form of expanded dengue syndrome. HLH is one of the important expanded dengue syndromes.

That 65 years old male presented with drowsiness for 1day with a recent history of high grade intermittent fever in the month of June which is a peak month for dengue infection. In this case report clinical features suggestive of dengue i.e muscle and joints/bones pain, retro orbital pain was not mentioned clearly. Whether patient was febrile throughout the illness or became afebrile within a short period. Initial investigation was suggestive of dengue haemorrhagic fever. Author mention ICT for dengue was negative but I am not fully satisfied with only this statement. Whether NS1 antigen for dengue was done or not, was not mentioned. I would like to know if authors took every step to exclude possibilities of dengue in this case. As dengue fever is a burning public health problem in our country features mimicking dengue should be thoroughly investigate to confirm or refute the diagnosis.

Overall I think the case report and literature review is very much updated, informative. I would like to thank the authors for their hard work.

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Dr. Rubina Yasmin
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Department of Medicine
Dhaka Dental College

Reply

Thank you very much for going through the article and making your observation.

Our patient presented with drowsiness for 1 day with recent history of high grade intermittent fever and

generalized erythroderma for 6 days. He had no history of headache, body ache, retro orbital pain, myalgia or joint pain which typically suggestive of Dengue fever. Initially dengue fever was one of our differential diagnosis and we did ICT dengue on the day of his admission (6th day of his illness) and it was negative. We know dengue NS1 Ag remain positive for initial 5 days of illness. This test may become negative from day 4-5 of illness. Hence we did not do dengue NS1 Ag as he came to us on 6th day of his illness. His dengue NS1 Ag was done on 2nd day of his illness before admission in our hospital and it was negative. We did repeated ICT dengue but both IgG and IgM were negative.

He was afebrile for 3 days after starting the chemotherapy. Again he became febrile and passed away after 2 days.

I fully agree with you that Dengue is one of the cause of secondary HLH. Clinicians should be aware of the fact that the occurrence of haemophagocytosis could be due to dengue virus infection in areas where the disease prevalence is more like our country.

Dr. Syeda Fahmida Hossain
Specialist, Department of Medicine
United Hospital Limited

COLLEGE NEWS

(J Banagladesh Coll Phys Surg 2015; 33: 237-244)

College news Examinations news: Results of **FCPS Part-I, Part-II and MCPS** examination held in January are given bellow:

4443 candidates appeared in **FCPS Part-I**, examinatin held in July, 2015 of which **328** candidates came out successful.

Subject wise results are as follows:

Result of FCPS Part-I Examination (July, 2015)

SL. No.	Subject	July-2015		
		Total Candidate	Total Passed	Percentage %
1.	Anaesthesiology	132	7	5.30
2.	Biochemistry	13	1	7.69
3.	Dentistry	205	8	3.90
4.	Dermatology & Venereology	55	11	20.00
5.	Family Medicine	2	0	0.00
6.	Haematology	17	2	11.76
7.	Histopathology	27	6	22.22
8.	Medicine	1402	50	3.57
9.	Microbiology	22	2	9.09
10.	Obst. & Gynae	983	86	8.75
11.	Ophthalmology	115	5	4.35
12.	Otolaryngology	137	22	16.06
13.	Paediatrics	459	55	11.98
14.	Physical Medicine & Rehabilitation	24	6	25.00
15.	Psychiatry	12	0	0.00
16.	Radiology & Imaging	50	5	10.00
17.	Radiotherapy	34	3	8.82
18.	Surgery	754	59	7.82
19.	Transfusion Medicine			
	TOTAL	4443	328	7.38

The following candidates satisfied the Board of Examiners and are declared to have passed the **FCPS - II** Examinations held in **July, 2015** subject to confirmation by the council of Bangladesh College of Physicians and Surgeons

Roll No.	Name	From where graduated	Subject
026-8901	Reaz Mahmud Huda	Mymensingh Medical College, Mymensingh	Cardiology
026-8902	Md. Wali - Ur- Rahman	Rangpur Medical College, Rangpur	Cardiology
026-8903	Abdullah-Al-Mahmud	Sir Salimullah Medical College, Dhaka	Cardiology
026-8904	Sonjoy Biswas	Sir Salimullah Medical College, Dhaka	Cardiovascular Surgery
026-8905	Syed Mosfiqur Rahman	Mymensingh Medical College, Mymensingh	Cardiovascular Surgery
026-8906	Saleh Mohammad Shahedul Islam	MAG Osmani Medical College, Sylhet	Gastroenterology

Roll No.	Name	From where graduated	Subject
026-8908	A. N. M. Ilias	Sir Salimullah Medical College, Dhaka	Neuro-Surgery
026-8913	Kamrun Nahar	Bangladesh Medical College, Dhaka	Paediatric Haematology and Oncology
026-8914	Talukder Agm Zakaria Nazimuddin Jubery	Mymensingh Medical College, Mymensingh	Plastic and Reconstructive Surgery
026-8916	Md. Masudul Hassan	Rajshahi Medical College, Rajshahi	Rheumatology
026-8917	S.M. Shahadat Hossain	Sir Salimullah Medical College, Dhaka	Thoracic Surgery
087-7002	Md. Shahriar Muhit	Bangladesh Medical College, Dhaka	Anaesthesiology
087-7003	Md. Afzalur Rahman	Chittagong Medical College, Chittagong	Anaesthesiology
087-7007	Syed Ariful Islam	Sir Salimullah Medical College, Dhaka	Anaesthesiology
087-7009	Md. Tarikul Hasan	Shaheed Ziaur Rahman Medical College, Bogra	Anaesthesiology
087-7011	Mohammad Abu Taher	Sher-E-Bangla Medical College, Barisal	Anaesthesiology
087-7012	Atiqur Rahman	Comilla Medical College, Comilla	Anaesthesiology
087-7019	Md. Abdullah Al Mahmud	Sapporo Dental College, Dhaka	Conservative Dentistry and Endodontics
087-7026	Tahmina Sultana	Comilla Medical College, Comilla	Dermatology and Venereology
087-7030	Md. Abul Kalam	Community Based Medical College, Mymensingh	Dermatology and Venereology
087-7031	Isabela Kabir	Rajshahi Medical College, Rajshahi	Dermatology and Venereology
087-7032	K. M. Majedul Islam	Sher-E-Bangla Medical College, Barisal	Dermatology and Venereology
087-7033	Kaniz Shahali Reza Snigdha	Sir Salimullah Medical College, Dhaka	Dermatology and Venereology
087-7043	Md. Mostafizur Rahman	Rajshahi Medical College, Rajshahi	Dermatology and Venereology
087-7044	Dilruba Aktar	Jalalabad Ragib-Rabeya Medical College, Sylhet	Dermatology and Venereology
087-7083	Mohammad Saiful Islam Miah	Mymensingh Medical College, Mymensingh	Medicine
087-7091	Romena Hassan	Dhaka Medical College, Dhaka	Medicine
087-7114	Abu Muhammad Shamsu Uddin	Rajshahi Medical College, Rajshahi	Medicine
087-7135	Sk. Moazzem Hossain	Sher-E-Bangla Medical College, Barisal	Medicine
087-7136	Farjana Kabir	Sher-E-Bangla Medical College, Barisal	Medicine
087-7137	Mohammad Wahidur Rahman	Mymensingh Medical College, Mymensingh	Medicine
087-7147	Md. Raknuzzaman	Dhaka Medical College, Dhaka	Medicine
087-7148	Md. Abdullah-Al-Maruf	Dhaka Medical College, Dhaka	Medicine
087-7161	Md. Abdul Baset	Sir Salimullah Medical College, Dhaka	Medicine
087-7165	Muhammad Faizur Rahman	Rajshahi Medical College, Rajshahi	Medicine
087-7184	Beena Sarker	Sir Salimullah Medical College, Dhaka	Medicine
087-7188	Gobinda Gain	Sher-E-Bangla Medical College, Barisal	Medicine
087-7190	Md. Azizul Haque	Sir Salimullah Medical College, Dhaka	Medicine
087-7212	Md. Firoj Hossain	Rangpur Medical College, Rangpur	Medicine
087-7213	Md. Rehan Habib	Rangpur Medical College, Rangpur	Medicine
087-7214	Md. Khairul Islam	Sir Salimullah Medical College, Dhaka	Medicine
087-7224	Kazi Nazmul Hossain	Dhaka Medical College, Dhaka	Medicine

Roll No.	Name	From where graduated	Subject
087-7287	Ashraf -Ur- Rahman	Dhaka Medical College, Dhaka	Medicine
087-7319	Mostofa Kamal	Rangpur Medical College, Rangpur	Medicine
087-7322	Farhana Sayeed	Dhaka Medical College, Dhaka	Medicine
087-7335	Muhammad Tanvir Mohith	Mymensingh Medical College, Mymensingh	Medicine
087-7346	Muhammad Nazmul Alam	Dhaka Medical College, Dhaka	Medicine
087-7356	Juwel Chowdhury	Sir Salimullah Medical College, Dhaka	Medicine
087-7388	Md. Matiur Rahman	Rangpur Medical College, Rangpur	Medicine
087-7391	Md. Nazmul Hasan	Sir Salimullah Medical College, Dhaka	Medicine
087-7463	Muntasir Hasnain	Dhaka Medical College, Dhaka	Medicine
087-7540	Nasrin Akter	Comilla Medical College, Comilla	Obst and Gynae
087-7544	Tania Ferdous Setu	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7563	Kaniz Fatema	Sher-E-Bangla Medical College, Barisal	Obst and Gynae
087-7568	Fatema Begum	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7591	Sharif Najmunnaher	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7594	Uma Nag	Mymensingh Medical College, Mymensingh	Obst and Gynae
087-7602	Sabrin Farhad	Armed Forces Medical College, Dhaka	Obst and Gynae
087-7607	Samina Sultana	Chittagong Medical College, Chittagong	Obst and Gynae
087-7632	Shabera Arzoo	Comilla Medical College, Comilla	Obst and Gynae
087-7636	Sharmin Afroz	Rajshahi Medical College, Rajshahi	Obst and Gynae
087-7644	Anjuman Sultana	Dhaka Medical College, Dhaka	Obst and Gynae
087-7645	Tahmina Begum Tuhin	Sher-E-Bangla Medical College, Barisal	Obst and Gynae
087-7661	Shahanaz Akhter	Mymensingh Medical College, Mymensingh	Obst and Gynae
087-7672	Rokeya Khatun	MAG Osmani Medical College, Sylhet	Obst and Gynae
087-7675	Shahnima Nargis	Sher-E-Bangla Medical College, Barisal	Obst and Gynae
087-7678	Lailatunnessa	Chittagong Medical College, Chittagong	Obst and Gynae
087-7680	Shiffin Rijvi	Sher-E-Bangla Medical College, Barisal	Obst and Gynae
087-7689	Raunak Jahan	MAG Osmani Medical College, Sylhet	Obst and Gynae
087-7692	Afsana Haque Chowdhury	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7697	Muqsuda Ashraf	Z.H. Sikder Women's Medical College, Dhaka	Obst and Gynae
087-7699	Moumita Roy	Dhaka Medical College, Dhaka	Obst and Gynae
087-7701	Summyia Nazmeen	Dhaka National Medical College, Dhaka	Obst and Gynae
087-7704	Rubina Bari	Dhaka Medical College, Dhaka	Obst and Gynae
087-7709	Rokeya Begum	Dhaka Medical College, Dhaka	Obst and Gynae
087-7713	Jhuma Biswas	Armed Forces Medical College, Dhaka	Obst and Gynae
087-7714	Sayada Sanjidara Nupur	Armed Forces Medical College, Dhaka	Obst and Gynae
087-7718	Saria Sharmin	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7721	Mahamuda Yasmin	Mymensingh Medical College, Mymensingh	Obst and Gynae

Roll No.	Name	From where graduated	Subject
087-7724	Ashfeka Gini	Holy Family Red Crescent Medical College, Dhaka	Obst and Gynae
087-7689	Raunak Jahan	MAG Osmani Medical College, Sylhet	Obst and Gynae
087-7731	Afroza Akhter	Rangpur Medical College, Rangpur	Obst and Gynae
087-7747	Kaniz Akther	Jahurul Islam Medical College, Bajitpur	Obst and Gynae
087-7748	Anuradha Karmaker	Rangpur Medical College, Rangpur	Obst and Gynae
087-7750	Nargis Sultana	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7751	Rahela Khatun	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7763	Sushmita Bardhan	Rajshahi Medical College, Rajshahi	Obst and Gynae
087-7764	Mst. Rukshana Pervin	Rajshahi Medical College, Rajshahi	Obst and Gynae
087-7768	Banani Bhowmik	Dhaka Medical College, Dhaka	Obst and Gynae
087-7769	Marzina Faruq	Dhaka Medical College, Dhaka	Obst and Gynae
087-7776	Mariha Alam Chowdhury	Bangladesh Medical College, Dhaka	Obst and Gynae
087-7790	Sarmin Sultana Shikha	Mymensingh Medical College, Mymensingh	Obst and Gynae
087-7792	Mst. Sharifa Khatun	Mymensingh Medical College, Mymensingh	Obst and Gynae
087-7797	Rehena Begum	Rangpur Medical College, Rangpur	Obst and Gynae
087-7798	Kaji Shirin Akter	MAG Osmani Medical College, Sylhet	Obst and Gynae
087-7799	Jesmin Sultana	Sher-E-Bangla Medical College, Barisal	Obst and Gynae
087-7820	Shamsun Naher	Rajshahi Medical College, Rajshahi	Obst and Gynae
087-7832	Syeda Shanjida Runa	Mymensingh Medical College, Mymensingh	Obst and Gynae
087-7836	Sayeda Niger Sultana	Mymensingh Medical College, Mymensingh	Obst and Gynae
087-7843	Nazia Islam	Z.H. Sikder Women's Medical College, Dhaka	Obst and Gynae
087-7855	Jannatul Ferdous	Jahurul Islam Medical College, Bajitpur	Obst and Gynae
087-7857	Rume Nasrin	Rajshahi Medical College, Rajshahi	Obst and Gynae
087-7865	Qumrun Nassa Ahmed	Bangladesh Medical College, Dhaka	Obst and Gynae
087-7868	Shamima Akter	Chittagong Medical College, Chittagong	Obst and Gynae
087-7871	Mirza Farzana Holy	Dhaka Medical College, Dhaka	Obst and Gynae
087-7875	Benozir Haque	MAG Osmani Medical College, Sylhet	Obst and Gynae
087-7877	Habiba Akther	Comilla Medical College, Comilla	Obst and Gynae
087-7881	Shamim Ara	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7883	Ismat Jahan	MAG Osmani Medical College, Sylhet	Obst and Gynae
087-7921	Aklima Sultana	Rangpur Medical College, Rangpur	Obst and Gynae
087-7924	Mst. Maksuda Parvin	Shaheed Ziaur Rahman Medical College, Bogra	Obst and Gynae
087-7930	Sarah Ambarin Chowdhury	Armed Forces Medical College, Dhaka	Obst and Gynae
087-7931	Arshad Jahan	Comilla Medical College, Comilla	Obst and Gynae
087-7939	Sumaya Akter	Mymensingh Medical College, Mymensingh	Obst and Gynae

Roll No.	Name	From where graduated	Subject
087-7944	Shamima Akhter	Dhaka Medical College, Dhaka	Obst and Gynae
087-7957	Hosne Ara	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-7984	Jasmin Akhter	Chittagong Medical College, Chittagong	Obst and Gynae
087-7994	Niva Rani Das	Rajshahi Medical College, Rajshahi	Obst and Gynae
087-8019	Jannatul Ferdous	Chittagong Medical College, Chittagong	Obst and Gynae
087-8033	Abu Hena Mostafa Kamal Ahmed	Rajshahi Medical College, Rajshahi	Ophthalmology
087-8037	Susmita Sarkar	Kumudini Womens' Medical College, Tangail	Ophthalmology
087-8038	Mohammad Mamunur Rashid Chowdhury	Dhaka Medical College, Dhaka	Ophthalmology
087-8040	Md. Mahmudur Rahman	Dhaka Medical College, Dhaka	Ophthalmology
087-8041	Ashraful Huq Ridoy	Bangladesh Medical College, Dhaka	Ophthalmology
087-8043	Rina Akter	Mymensingh Medical College, Mymensingh	Ophthalmology
087-8060	Mohammad Iqbal Kabir	Dhaka Dental College, Dhaka	Oral and Maxillofacial Surgery
087-8061	Abdullah Al-Mehedi	Dhaka Dental College, Dhaka	Oral and Maxillofacial Surgery
087-8062	Md. Raihan -Ul Arefin	Chittagong Medical College, Chittagong	Oral and Maxillofacial Surgery
087-8064	Md. Mostafizur Rahman	Dhaka Dental College, Dhaka	Oral and Maxillofacial Surgery
087-8075	Farjana Karim	Chittagong Medical College, Chittagong	Oral and Maxillofacial Surgery
087-8079	Shahanaz Akter Bijou	Dhaka Dental College, Dhaka	Oral and Maxillofacial Surgery
087-8083	Md. Ishtiaq Hasan	Dhaka Dental College, Dhaka	Orthodontics and Dentofacial Orthopaedics
087-8088	Shamima Nargish	Dhaka Dental College, Dhaka	Orthodontics and Dentofacial Orthopaedics
087-8090	Rafat Ara Ruba	Dhaka Dental College, Dhaka	Orthodontics and Dentofacial Orthopaedics
087-8092	Mir Abu Naim	Rajshahi Medical College, Rajshahi	Orthodontics and Dentofacial Orthopaedics
087-8094	S. M. Khaled Jahan	Dhaka Medical College, Dhaka	Otolaryngology
087-8095	Syed Sanaul Islam	Rangpur Medical College, Rangpur	Otolaryngology
087-8096	Mohammad Wakilur Rahman	Rajshahi Medical College, Rajshahi	Otolaryngology
087-8097	Md. Zakir Hossain	Rangpur Medical College, Rangpur	Otolaryngology
087-8100	Md. Mostafizur Rahman	Sher-E-Bangla Medical College, Barisal	Otolaryngology
087-8101	Md. Shaikhul Islam	Sir Salimullah Medical College, Dhaka	Otolaryngology
087-8112	Dhiman Pramanik	Dhaka Medical College, Dhaka	Otolaryngology
087-8120	Md. Emamul Haque	Sir Salimullah Medical College, Dhaka	Otolaryngology
087-8121	Mohammad Shahjahan Sarker	Sir Salimullah Medical College, Dhaka	Otolaryngology
087-8123	Najnin Akhter	Comilla Medical College, Comilla	Paediatrics
087-8126	Humaira Rafiqa Quaderi	Sher-E-Bangla Medical College, Barisal	Paediatrics
087-8154	Mohammad Shohel	MAG Osmani Medical College, Sylhet	Paediatrics
087-8168	Md. Abu Sayed	Chittagong Medical College, Chittagong	Paediatrics
087-8169	Kamrunnaher Shultana	Z.H. Sikder Women's Medical College, Dhaka	Paediatrics

Roll No.	Name	From where graduated	Subject
087-8179	Palash Kumar Biswas	Rajshahi Medical College, Rajshahi	Paediatrics
087-8208	Wasim Abed Aumi	Shaheed Mansur Ali Medical College, Uttara, Dhaka	Paediatrics
087-8229	Mosammat Morsheda Khanam	Rajshahi Medical College, Rajshahi	Paediatrics
087-8231	Taskina Ahmed Chowdhury	MAG Osmani Medical College, Sylhet	Paediatrics
087-8245	Shams Ibne Maksud	Jahurul Islam Medical College, Bajitpur	Paediatrics
087-8266	Mst. Laboni Akter	Dhaka Medical College, Dhaka	Paediatrics
087-8267	Saima Talukder	Chittagong Medical College, Chittagong	Paediatrics
087-8268	Tania Sharmin	Dhaka Medical College, Dhaka	Paediatrics
087-8285	Romana Akter Happy	MAG Osmani Medical College, Sylhet	Paediatrics
087-8286	Afsana Mukti	MAG Osmani Medical College, Sylhet	Paediatrics
087-8292	Shareen Khan	Bangladesh Medical College, Dhaka	Paediatrics
087-8293	Subrata Roy	Sher-E-Bangla Medical College, Barisal	Paediatrics
087-8314	Sudipta Roy	Rajshahi Medical College, Rajshahi	Paediatrics
087-8331	Dipika Dey	Chittagong Medical College, Chittagong	Paediatrics
087-8342	Palash Nag	Chittagong Medical College, Chittagong	Physical Medicine & Rehabilitation
087-8343	Ripon Kumer Saha	Faridpur Medical College, Faridpur	Physical Medicine & Rehabilitation
087-8345	Alam Mohammad Sharif	Chittagong Medical College, Chittagong	Physical Medicine & Rehabilitation
087-8346	Mohammod Borhan Uddin Howlader	Dhaka Dental College, Dhaka	Prosthodontics
087-8347	Md. Mamunur Rashid	Pioneer Dental College, Dhaka	Prosthodontics
087-8350	Syeda Tasmia Kawser	City Dental College, Dhaka	Prosthodontics
087-8352	Ahsan Uddin Ahmed	Bangladesh Medical College, Dhaka	Psychiatry
087-8355	Sayeda Humyra Zamin	MAG Osmani Medical College, Sylhet	Radiology & Imaging
087-8359	Farzana Alam	Dhaka Medical College, Dhaka	Radiology & Imaging
087-8360	Jakia Hossain	Jahurul Islam Medical College, Bajitpur	Radiology & Imaging
087-8367	Shafatujjahan	Chittagong Medical College, Chittagong	Radiotherapy
087-8368	Fariah Sharmeen	Comilla Medical College, Comilla	Radiotherapy
087-8369	Taohida Yasmin	Medical College for Women and Hospital, Dhaka	Radiotherapy
087-8377	Nabila Khanduker	Sir Salimullah Medical College, Dhaka	Surgery
087-8400	Humayun Kabir Kallol	Armed Forces Medical College, Dhaka	Surgery
087-8403	Farhana Yesmin	Mymensingh Medical College, Mymensingh	Surgery
087-8417	Mohammed Masudur Rahman	Rangpur Medical College, Rangpur	Surgery
087-8421	Mohammad Monjur Morshed Hossain	Dhaka Medical College, Dhaka	Surgery
087-8425	Mohammad Ataul Islam	Dhaka Medical College, Dhaka	Surgery
087-8436	Shantona Rani Paul	Rajshahi Medical College, Rajshahi	Surgery
087-8450	Md. Sumon Rahman	Jahurul Islam Medical College, Bajitpur	Surgery
087-8459	Mithun Kumar Bakshi	Mymensingh Medical College, Mymensingh	Surgery

Roll No.	Name	From where graduated	Subject
087-8467	Md. Merajul Islam	Rajshahi Medical College, Rajshahi	Surgery
087-8481	A. S. M. Kutub Uddin Awal	Sir Salimullah Medical College, Dhaka	Surgery
087-8495	Md. Sohel Rana	Rangpur Medical College, Rangpur	Surgery
087-8511	Syed Mohammad Sarwar	Rajshahi Medical College, Rajshahi	Surgery
087-8520	Sadia Imdad	Sir Salimullah Medical College, Dhaka	Surgery
087-8525	Asif Almas Haque	Sir Salimullah Medical College, Dhaka	Surgery
087-8529	Mohammuddunnobi	Mymensingh Medical College, Mymensingh	Surgery
087-8549	Sandipan Chakrabarty	Rangpur Medical College, Rangpur	Surgery
087-8556	Roksana Afroj	Rangpur Medical College, Rangpur	Surgery
087-8558	Bidyut Chandra Debnath	Faridpur Medical College, Faridpur	Surgery
087-8582	Md. Monoarul Islam Talukdar	Chittagong Medical College, Chittagong	Surgery
087-8593	A. K. M. Mushfiqer Haider	Mymensingh Medical College, Mymensingh	Surgery
087-8596	Mohammad Nazmul Huda	Sher-E-Bangla Medical College, Barisal	Surgery
087-8609	Md. Fardhus	Sher-E-Bangla Medical College, Barisal	Surgery
087-8638	Shah Md. Rezaul Karim	Mymensingh Medical College, Mymensingh	Surgery

The following candidates satisfied the Board of Examiners and are declared to have passed the **MCPS** Examinations held in **July, 2015** subject to confirmation by the council of Bangladesh College of Physicians and Surgeons

Roll No.	Name	From where graduated	Subject
087-9005	Subroto Kumar Sarker	Rajshahi Medical College, Rajshahi	Anaesthesiology
087-9007	Mizanur Rahman	Faridpur Medical College, Faridpur	Anaesthesiology
087-9010	Imana Shahreen	Armed Forces Medical College, Dhaka	Clinical Pathology
087-9011	Md. Hasibul Islam	Mymensingh Medical College, Mymensingh	Clinical Pathology
087-9012	Tonima Talukder	Mymensingh Medical College, Mymensingh	Clinical Pathology
087-9013	Mostare Khondoker	Sir Salimullah Medical College, Dhaka	Clinical Pathology
087-9014	Durdana Maheen	Armed Forces Medical College, Dhaka	Clinical Pathology
087-9016	Sabina Yasmin	Comilla Medical College, Comilla	Clinical Pathology
087-9018	Mreenal Kanti Sarkar	Armed Forces Medical College, Dhaka	Clinical Pathology
087-9023	Meher Afsun	Sir Salimullah Medical College, Dhaka	Dermatology and Venereology
087-9024	Sharmin Begum	Khulna Medical College, Khulna	Dermatology and Venereology
087-9028	Md. Nasir Uddin Molla	Sher-E-Bangla Medical College, Barisal	Dermatology and Venereology
087-9040	Neamatullah Ahmed	Sher-E-Bangla Medical College, Barisal	Family Medicine
087-9041	Anjan Kumar Das	Sher-E-Bangla Medical College, Barisal	Forensic Medicine
087-9048	Mohammad Syedur Rahaman Sumon	Dhaka National Medical College, Dhaka	Forensic Medicine
087-9049	Prodip Biswas	Dhaka Medical College, Dhaka	Forensic Medicine
087-9076	Mahmuda Begum	Dhaka Medical College, Dhaka	Medicine
087-9106	Ali Muhammad	Dhaka Medical College, Dhaka	Medicine
087-9115	Mohammad Farhad	Chittagong Medical College, Chittagong	Medicine
087-9121	Rubyat Hasan Chowdhury	Mymensingh Medical College, Mymensingh	Medicine
087-9140	Muhammed Saiful Islam	Sir Salimullah Medical College, Dhaka	Medicine

Roll No.	Name	From where graduated	Subject
087-9154	Md. Nazmul Haque	Sir Salimullah Medical College, Dhaka	Medicine
087-9161	Md. Ashiq Iqbal	Rajshahi Medical College, Rajshahi	Medicine
087-9165	Mohammad Ashik Imran Khan	Dhaka Medical College, Dhaka	Medicine
087-9176	Quazi Tamjidul Islam	Ibrahim Medical College, Dhaka	Medicine
087-9191	Mohammad Nur Uddin	MAG Osmani Medical College, Sylhet	Medicine
087-9213	Mahammod Selim Uddin	Rajshahi Medical College, Rajshahi	Medicine
087-9234	Syda Tanzina Kalam	Chittagong Medical College, Chittagong	Medicine
087-9244	Md. Mizanur Rahman	Dhaka Medical College, Dhaka	Medicine
087-9250	Mohammad Fahad Chowdhury	Mymensingh Medical College, Mymensingh	Medicine
087-9263	Dewan Mushfiqur Rahman	Sir Salimullah Medical College, Dhaka	Medicine
087-9326	Mariam Akter	Dinajpur Medical College, Dinajpur	Obst and Gynae
087-9381	Dina Layla Hossain	Dhaka Medical College, Dhaka	Obst and Gynae
087-9385	Aklima Zakaria Zinan	Dhaka Medical College, Dhaka	Obst and Gynae
087-9420	Jereen Afsana	Sher-E-Bangla Medical College, Barisal	Obst and Gynae
087-9430	Ananya Bhattacharjee	Sir Salimullah Medical College, Dhaka	Obst and Gynae
087-9444	Nusrat Shahrin	MAG Osmani Medical College, Sylhet	Ophthalmology
087-9464	Sharfuddin Mahmud	Sir Salimullah Medical College, Dhaka	Otolaryngology
087-9467	Md. Momin Uddin	Sir Salimullah Medical College, Dhaka	Otolaryngology
087-9469	Muhammad Shahidul Alam	Chittagong Medical College, Chittagong	Otolaryngology
087-9530	Sohaila Ahmad	Rajshahi Medical College, Rajshahi	Psychiatry
087-9532	Akhter Mahmud	Mymensingh Medical College, Mymensingh	Psychiatry
087-9533	Md. Maruful Haque	Chittagong Medical College, Chittagong	Psychiatry
087-9537	Rukhsana Parveen	Armed Forces Medical College, Dhaka	Radiology & Imaging
087-9538	Ridwana Habib	MAG Osmani Medical College, Sylhet	Radiology & Imaging
087-9539	Farhana Zaman	Armed Forces Medical College, Dhaka	Radiology & Imaging
087-9540	Badrul-Ala-Mohaimin Fuad	Armed Forces Medical College, Dhaka	Radiology & Imaging
087-9541	Saleha Sultana	Armed Forces Medical College, Dhaka	Radiology & Imaging
087-9544	S. M. Nazmul Hasan	Chittagong Medical College, Chittagong	Radiotherapy
087-9546	Anannya Sarkar	Sher-E-Bangla Medical College, Barisal	Radiotherapy
087-9577	Mst. Jesmen Nahar	Rajshahi Medical College, Rajshahi	Surgery
087-9611	Mohammad Enamul Hoq	Rangpur Medical College, Rangpur	Surgery
087-9616	Chishti Tanhar Bakth Choudhury	Comilla Medical College, Comilla	Surgery

FROM THE DESK OF EDITOR in CHIEF

(J Banagladesh Coll Phys Surg 2015; 33: 245)

Dear Fellows

I am glad that we have the official website of Journal of BCPS (www.bcpsjournal.org) running successfully for quite a few months. We look forward to transform our beloved journal into an international standard journal, where article submission, review process, author notifications etc. will be done electronically along with timely online publications. The web site has been decorated with all these facilities and I invite all our fellows for free registration. You will find the latest journal along with archived old issues and can download any content free. I earnestly request our valued authors to submit their articles online and they can follow the review status online by logging in personally. Your active participation will make the website effective and vibrant throughout the world and pave our way to achieve higher recognitions and impact factor for our very own journal.

The website is still under development process and for any difficulties or suggestions, please email to journal.bcps@gmail.com.

I hope you will be more encouraged with your journal and come forward with more article submissions and website participation.

Thank you.

Prof. Khan Abul Kalam Azad
Editor-in-Chief
Journal of BCPS

Obituary

(J Banagladesh Coll Phys Surg 2015; 33: 246)

The following Fellows who died 2015

Dr. (Lt Col) Md. Tauhid-Ul-Mulk

Dr. (Lt Col) Md. Tauhid-Ul-Mulk died on 8th January, 2014. He Passed fellowship in Anesthesiology in July 2005 from Bangladesh College of Physicians and Surgeons (BCPS).

Dr. Sultana Kaniz Fahmida

Dr. Sultana Kaniz Fahmida died on 12th April, 2015. He Passed fellowship in Obst & Gynae in January 2003 from Bangladesh College of Physicians and Surgeons (BCPS).

Professor Mujibur Rahman

Professor Mujibur Rahman died on 29th June, 2015. He own honorary fellowship in Transfusion Medicine 2007 from Bangladesh College of Physicians and Surgeons (BCPS).

Professor A.K.M. Khorshed Alam

Professor A.K.M. Khorshed Alam died on 26th July, 2015. He Passed fellowship in Medicine in July 1983 from Bangladesh College of Physicians and Surgeons (BCPS).