

# Looking Back: Remarkable Articles Published in the Journal of Bangladesh College of Physicians and Surgeons

MARAHIM<sup>a</sup>, R NAZNEEN<sup>b</sup>, T SAIFUL<sup>c</sup>, SAFROZA<sup>d</sup>, RABEGUM<sup>e</sup>

## Abstract:

*Journal archives are invaluable resources to the scientific community. The Journal of Bangladesh College of Physicians and Surgeons (JBCPS) is one of the leading biomedical journals in Bangladesh. The objectives of the present review were to have an overview to the all published articles in the JBCPS and to identify remarkable articles for republication of the abstracts on the occasion of golden jubilee celebration of the Bangladesh College of Physicians and Surgeons (BCPS).*

*This retrospective review covered all published articles in the JBCPS since its inaugural issue published in August 1983 to the latest issue published in April 2022. Articles were retrieved from different sources; the BCPS Library, the JBCPS office and Bangladesh Journals On-Line (BanglaJOL). For selection of remarkable articles, systematic review and meta-analysis of randomized controlled clinical trials and original articles were considered and review articles, case reports and others were excluded. Articles were evaluated on three main areas: contribution to the field, methods and clarity of presentation. After initial scrutiny by different contributors, a short list containing 43 articles was prepared. This short list*

*was then reevaluated by each authors individually for identification of 20 remarkable articles and the final selection was made jointly in a meeting among them.*

*Over 40 years, the JBCPS has published 1212 different types of articles including 114 editorials, 565 original research articles, 138 review articles, 316 case reports, 37 images and 42 other types of articles. Twenty remarkable articles were selected from different specialties including anaesthesiology, dentistry, endocrinology, gastroenterology, hepatology, infectious diseases, histopathology, medical education, obstetrics and gynaecology, oncology, ophthalmology, pulmonology, paediatrics, psychiatry, surgery, toxicology and other specialties.*

*In spite of its commendable role in publishing scholarly articles over the previous four decades, the JBCPS is expected to contribute more in the future, both in local and international perspectives.*

**Key words:** Abstract, articles, the Journal of Bangladesh College of Physicians and Surgeons.

*(J Bangladesh Coll Phys Surg 2022; 40: 62-73)*

DOI: <https://doi.org/10.3329/jbcps.v40i40.59910>

## Introduction:

Medical journals are peer-reviewed scientific journals those communicate information to the health care

- Dr. Muhammad Abdur Rahim, Associate Professor, Department of Nephrology, BIRDEM General Hospital, Dhaka, Bangladesh.
- Dr. Rumana Nazneen, Associate Professor, Department of Obstetrics and Gynaecology, Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh.
- Lt. Col. Tasnuva Saiful, Medicine Specialist, CMH-Mymensing, Bangladesh.
- Prof. Syeda Afroza, Professor of Paediatrics (Retd.), Shaheed Suhrawardy Medical College, Dhaka, Bangladesh.
- Prof. Rowshan Ara Begum, Professor (Retd.) of Obstetrics and Gynaecology, Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh.

**Address of Correspondence:** Dr. Muhammad Abdur Rahim, Associate Professor, Department of Nephrology, BIRDEM General Hospital, Dhaka, Bangladesh.

Email: [muradrahim23@yahoo.com](mailto:muradrahim23@yahoo.com)

professionals; journals those cover multiple medical specialties are often designated as general medical journals.<sup>1</sup> History of general medical journals goes back to the 18<sup>th</sup> century; *Medical Essays and Observations* was the first medical journal in the United Kingdom published from Edinburgh while *The Medical Repository* was the first in the United States.<sup>2,3</sup> History of medical journals in Bangladesh is relatively new; *Bangladesh Medical Journal* and *Bangladesh Medical Research Council Bulletin* are among the oldest journals of the country. The *Journal of Bangladesh College of Physicians and Surgeons (JBCPS)* started publishing since August 1983. Objectives of medical journals include improving medical care by publishing scientific articles and focusing on topics that are important to its readers.<sup>4</sup> In modern era, majority of medical journals are open access and the *JBCPS* is not an exception. For open access journals, in addition to ensuring content preservation, archiving can help raise awareness of published articles. Though, now-a-

days, most published journals have a global readership, local medical journals are important because they focus on local clinical problems, peer communication and fostering critical reading among health care workers.<sup>5</sup> This retrospective review aimed to have an overview to the all published articles in the *JBCPS* and to identify 20 remarkable articles from them for republication of the abstracts in the special supplement of the *JBCPS* to be published on the occasion of golden jubilee celebration of the Bangladesh College of Physicians and Surgeons (BCPS).

### Methods:

A retrospective review was done on all published articles in the *JBCPS* since its inaugural issue published in August 1983 to the most recent issue published in April 2022. Articles were retrieved from different sources; articles published between 1983 and 2004 were collected from the BCPS Library, those published in 2005 and in January and April issues of 2013 were collected from the *JBCPS* office and those published from 2006 to 2022 (except January and May issues of 2013) were retrieved from the website of Bangladesh Journals On-Line (BanglaJOL). For the purpose of selection of remarkable articles, systematic review and meta-analysis of randomized controlled clinical trials and original research articles were considered. Descriptive and narrative reviews, case reports, short reports and other types of articles were excluded. Articles were evaluated on three main areas (self-developed criteria, set after discussion and reaching to a consensus among the contributors of the present paper): contribution to the field at the time of publication, methodological soundness and clarity of presentation. Contribution to the field was scored 1 – 3, 1 being minimum to 3 being extremely good contribution and 2 is in between, methods were labeled as appropriate or not and clarity of presentation was scored 1 – 3, 1 being good and 3 being the best. Intention was to cover a wide variety of specialties. Initially, articles were scrutinized by different members of the group, both individually and jointly, following the set criteria by them for the purpose of selection of

articles (from 1983 to 2004 by MAR, RN and RAB, from 2006 to 2015 by RN and from 2016 to 2022 by RN and TS). After initial scrutiny, a short list containing 43 articles was prepared. This short list was then reevaluated by each contributor individually (MAR, RN, TS, SA, RAB) for identification of remarkable articles and the final selection was made jointly in a meeting among them. Articles published in the *JBCPS* by contributors of the present paper were not selected in the final list and there was no communication between authors of this paper and any of the authors of published articles in the *JBCPS* prior or during selections. The authors declare no conflicts of interest.

### Results:

Since inception in August 1983 to April 2022, over 40 years, the *JBCPS* has published over 1200 articles including 565 original research articles (Table I). The corresponding authors were Bangladeshi for most of the articles while 43 were from foreign nationals. From the original articles, 20 were selected for reprinting their abstracts in the golden jubilee special supplement of the *JBCPS* (Table II).<sup>6-25</sup> These covered anaesthesiology, dentistry, endocrinology, gastroenterology, hepatology, obstetrics and gynaecology, infectious diseases, histopathology, medical education, oncology, ophthalmology, paediatrics, psychiatry, pulmonology, surgery, toxicology and other specialties.

**Table-I**

*Different types of articles published in JBCPS (N = 1212)*

Types of articles	Number
Editorials	114
Original articles	565
Review articles	138
Case reports	316
Images	37
Others	42

**Table-II**

*Selected titles from the original articles for reprinting the abstracts in golden jubilee special supplement of the JBCPS (N=20)*

Sl. No.	Titles	Year of publication
1	Frozen section diagnosis: an analysis	1987
2	Vesico-vaginal fistula: surgical management of 100 cases	1989
3	Endoscopic retrograde cholangiopancreatography: experience of 150 cases at IPGMR, Dhaka	1990
4	Clinical profile of Kala-azar in Rajshahi: a prospective study of 273 hospitalized patients during one year	1990
5	Psychosexual outcome of females with permanent sterilization	1990
6	Day care surgery in Bangladesh: a six year study	1991
7	Natural course of viral B hepatitis in Bangladeshi population	1992
8	Pattern of eye diseases in rural area of Kishorjang district	1996
9	Comparison between fine needle aspiration cytology (FNAC) and fiberoptic bronchoscopy (FOB) in the diagnosis of peripheral lung lesion	2000
10	Analysis of undergraduate paediatrics written questions in terms of Bloom's taxonomy of educational objectives	2000
11	A community-based study to see the impact of health education programme on mode of initial treatment and reporting of cases of snakebite to Upazilla hospitals in Chittagong, Bangladesh	2001
12	Avoidable factors for maternal mortality – a community-based investigation in Bangladesh	2002
13	Study to Document Pre Admission Risk Factors for Development of Severe Malaria and the Spectrum of It and Outcome in Different Categories of Hospitals in Malaria Endemic Zone of Bangladesh	2004
14	A Comparative Study of Root Canal Shaping by Automated Rotary Ni-Ti and Conventional Hand Instruments	2005
15	Role of Intravenous Immunoglobulin (IVIG) as an Adjuvant in the Treatment of Neonatal Sepsis in Preterm Babies	2006
16	Laboratory Errors: Types and Frequency in a Tertiary Hospital in Bangladesh	2015
17	Efficacy and Safety of Vildagliptin Compared to Sulphonylurea in Patients with Type 2 Diabetes during Fasting in Ramadan	2015
18	Sciatic Nerve Block in Single Nerve Block Technique for Unilateral Foot Surgery – an Alternative to Spinal Anaesthesia	2019
19	HRCT Chest Evaluation of COVID-19 Patients: Experience in Combined Military Hospital Dhaka, Bangladesh	2020
20	Changing Clinical Pattern of Dengue Fever and Its Unusual Manifestations a 2019 Outbreak in Dhaka, Bangladesh	2021

#### **Abstracts of selected articles**

##### **Frozen section diagnosis: an analysis**

Syed Azim Ihtesham Ally, Dharam P Alrenga

A consecutive series of 502 operative frozen section diagnoses was reviewed. Correct diagnosis was made at the time in 98.9% of the cases. Clinically relevant

errors were found in 1% of the cases. Diagnosis was deferred to await subsequent paraffin sections in 7.9%. No false positive diagnosis of malignancy was made. The cases of incorrect or deferred diagnosis was analysed to ascertain the origin of the difficulties.

*J Bangladesh Coll Phys Surg. 1987 Aug; 5(1): 13-16*

**Vesico-vaginal fistula: surgical management of 100 cases**

A Begum

Genital fistula of obstetrical origin is a major problem in our country. It is a problem not only to the patients and her social intimates but also to the gynaecological surgeons. Surgical treatment and results of hundred cases of genital fistula of obstetrical origin over a period of two years is analysed in this study. Overall success rate was 85%.

*J Bangladesh Coll Phys Surg. 1989 Feb; 6(2): 29-32*

**Endoscopic retrograde cholangiopancreatography: experience of 150 cases at IPGMR, Dhaka**

M Hasan, MT Rahman, AKM Khorshed Alam, AK Azad Khan

Endoscopic retrograde cholangiopancreatography (ERCP) is a very useful investigation in the diagnosis of pancreatic and biliary tract diseases. This technique has been in use in IPGMR, Dhaka and reported here are the findings of the first 100 cases. This is the first report of ERCP in Bangladesh. Most patients were between the ages of 11 and 40 years. The clinical indications were chronic pancreatitis (50 patients), obscure abdominal pain (15 patients), post cholecystectomy syndrome (14 patients), common bile duct stone (11 patients), obstructive jaundice (nine patients) and ampullary carcinoma (one patient). ERCP was successful in outlining one or both ducts in 75 cases and the desired duct could be outlined in 64 cases. In 44 patients a definite diagnosis was reached. Even in the 31 cases where no abnormality was found at ERCP, this helped to exclude a presumed clinical diagnosis. There was no major complication in these patients. ERCP is a safe and useful investigative procedure in the diagnosis of biliary tract and pancreatic diseases.

*J Bangladesh Coll Phys Surg. 1990; 8(1): 8-13*

**Clinical profile of Kala-azar in Rajshahi: a prospective study of 273 hospitalized patients during one year**

MAJ Chowdhury, MN Alam, AKM Rafique Uddin, A Hussain, H Rahman, AB Siddiqui, MFH Nazir, KM Rahman, A Biswas

A total of 273 consecutive cases of Kala-azar (Visceral leishmaniasis) admitted in all the medical and paediatric

units of Rajshahi Medical College Hospital during one year period from October 1988 to September 1989 were studied. Kala-azar patients constituted 3% of total admissions in those units. Majority of the patients (61%) were within 20 years of age. Male-female ratio was 2:1. Fever, hepato-splenomegaly, anaemia, pigmentation, weight loss despite normal or even voracious appetite were the important features observed. The clinical features were classical. There were some atypical presentations, mostly noticed in the older age groups. Leucopaenia and high ESR were the important laboratory findings. The importance of Aldehyde test and CFT in the diagnosis of Kala-azar in our setting is discussed. The death rate was 5.9% which is much lower in comparison to other series.

*J Bangladesh Coll Phys Surg. 1990; 8(1): 18-28*

**Psychosexual outcome of females with permanent sterilization**

W Chowdhury, SK Ahmed, H Islam

Sixty female subjects between age 21 and 40 years who have undergone permanent sterilization by tubal ligation were investigated for their sexual practice and development and/or aggravation of any psychosexual symptoms and other psychological or physical symptoms after six months of operation. Majority of the subjects (54%) were in the age group between 26 and 30 years. Almost all were coming from urban areas (94%) and most of them (92%) were having a nuclear family. Eighty four percent (84%) women were having usual sexual arousal before sterilization which went down to 64% after sterilization but 12% of the subjects reported an increased arousal after operation. No remarkable change was found in the frequency of intercourse and orgasm. Their socioeconomic status, attitude towards sterilization and development of any other psychological or physical symptoms were also noted. Sixty eight percent of subjects had positive attitude towards sterilization before the operation. Only physical symptoms complained was pain around the scar (55%) and only a small minority developed psychological symptoms like insomnia, irritability, restlessness and fear of loss of love of husband.

*J Bangladesh Coll Phys Surg. 1990; 8(1): 29-34*

**Day care surgery in Bangladesh: a six year study**

S Rahman, AF Kabiruddin Ahmed, K Rahman, M Abdullah, S Hussain, R Amin, S Haque

Over the past six years (May 1985 to December 1990) surgery on day care basis were performed on 566 cases in the Department of Paediatric Surgery of The Institute of Post-Graduate Medicine and Research (IPGMR) Dhaka. As there is no separate operating theatre for this day care surgery (DCS) at this hospital these were done in the inpatient surgery (IPS) theatre. This study was undertaken to assess the feasibility of such service in the hospitals of Bangladesh. The procedures included general paediatric surgery and paediatric urology excluding trauma cases. A set system for selection of patients and their preparation for surgery was used. This had full cooperation and consents of the patients/guardians. There were no anaesthetic complication, requiring hospitalization and there was no death in this group. Four cases needed hospitalization for problems not anticipated before surgery. The DCS cases constituted 35 percent of total surgery load (IPS and combined). The age of patients in this group varied from two months to fifteen years. This type of service delivery is safe, economic and acceptable to patients/guardians, profession and health authority alike. Obviously the load on IPS beds were reduced. It is recommended for the tertiary hospitals of Bangladesh.

*J Bangladesh Coll Phys Surg. 1991; 9 (1 & 2): 20-23*

**Natural course of viral B hepatitis in Bangladeshi population**

M KHAN, KMJ ZAKI, NAHMED, J RAHMAN, MN ISLAM, SMALI

Hepatitis B virus (HBV) infection is endemic in Bangladesh. This is a follow up study on 100 patients with HBV hepatitis. The purpose of the study was to know the outcome of this disease in Bangladeshi population. The mean duration of follow up was 18±3.2 month from January 1887 to June 1990. There was 80 males and 30 females. Their age ranged from 8 to 70 years. In 77 (70%) cases, there were clinical jaundice and 33 (30%) cases presented as anicteric hepatitis. After the initial diagnosis the patients were followed clinically, biochemically and serologically at three months interval. Imaging of hepatobiliary system and liver biopsy were done as and when indicated.

At the end of 18 months, in the anicteric group 13 (39.4%) had HBsAg and 10 (30.3%) were HBeAg seropositive. Four (12.1%) chronic persistent hepatitis, 3 (9%) chronic active hepatitis and 12 (36.7%) cirrhosis. In the corresponding icteric group, 8 (7.8%) had HBsAg, 5 (6.5%) were HBeAg seropositive. Three (3.9%) patients developed chronic persistent hepatitis, 6 (7.8%) chronic active hepatitis and 8 (10.4%) cirrhosis of the liver. Three anicteric and two icteric cases died from hepatic failure.

In conclusion, this study showed that, a great majority of patients with anicteric hepatitis developed chronic liver disease within a short period after HBV infection. In contrast, only a small fraction of patients with icteric hepatitis developed chronic liver disease. Unlike the reports from developed countries the morbidity of patients with HBV infection in Bangladesh appears to be higher. Therefore, integration of HBV vaccine in to the Expanded Programme of Immunization by World Health Organization for this country will save many lives from HBV infection.

*J Bangladesh Coll Phys Surg. 92; 10: 39-46*

**Pattern of eye diseases in rural area of Kishorjang district**

MS ISLAM

In across-sectional study, 2663 people were examined from 13 randomly selected vialages of 13 thanas of Kishorgonj district in the year 1993 to see the morbidity pattern at community level for ocular disease. It was observed that 1038 people were suffering from different types of diseases including 284 with ophthalmic conditions. Accordingly, more than one third of population in the community were found sick and the prevalence of eye diseases was 10.66% among the surveyed population. Of the eye diseases, 54 were cataract, 20 corneal opacities, 30 dacryocystitis, seven squint, seven glaucoma, 31 night blindness and 135 other conditions. Forty were found bilaterally blind and 29 were due to cataract (72.5%). It was also observed that a good number of treatable causes were ignorant of modern treatment facilities for which they remained unnoticed and never been recorded by health care personnel.

*J Bangladesh Coll Phys Surg. 1996; 14 (2): 64-68*



### **Comparison between fine needle aspiration cytology (FNAC) and fiberoptic bronchoscopy (FOB) in the diagnosis of peripheral lung lesion**

MMAHMED, MM HIRON, MF AHMED, MR HASAN, SS BHUIYAN, MA HOSSAIN, MM RAHMAN, M SOFIULLAH

Fine needle aspiration cytology (FNAC) was performed in 105 cases. There was 78 (74.95%) malignant cases, 21 (20%) non-malignant cases and in six (5.71%) case no diagnosis could be possible. The results of FNAC were compared with fibre optic bronchoscopy (FOB). No endobronchial lesion was seen in 84 (80%) cases, 21 (20%) cases revealed evidence of malignancy which was proved histologically. Diagnosis could be possible in two more cases by FOB which were undiagnosed by FNAC. Sensitivity of FNAC was 94%, which conforms to the previous studies. FNAC is a much better procedure to obtain a tissue diagnosis in peripheral pulmonary lesions ( $p = <0.001$ ). Complications were minimum and the procedure is cost-effective.

*J Bangladesh Coll Phys Surg. 2000; 18; 102-107*

### **Analysis of undergraduate paediatrics written questions in terms of Bloom's taxonomy of educational objectives**

SA RAHMAN

This study was designed to analyse undergraduate paediatric written questions in terms of Bloom's taxonomy of educational objectives. It was a retrospective study. Nine sets of final professional paediatric written questions of Dhaka University (1992-1994), that included 72 questions, were analysed. By analyzing the questions, it was determined, what were the educational objectives that had been demanded from the students. Results of this study showed that the vast majority of written questions (81.25%) focused on recall or recognition of isolated information, few questions (10.42%, 6.94% and 1.39% respectively) assessed comprehension, application of knowledge and analytic abilities of students. No questions at all focused on highest levels of cognitive domain like synthesis and evaluation. This study concluded that existing undergraduate paediatrics written examination is concerned with very low level of learning outcome, which are not appropriate in medical education.

*J Bangladesh Coll Phys Surg. 2000; 18 (special suppl.): 15-18*

### **A community-based study to see the impact of health education programme on mode of initial treatment and reporting of cases of snakebite to Upazilla hospitals in Chittagong, Bangladesh**

MA FAIZ, M TAHIR, T AHMED, R RASHID, R PALIT, QS ATAHHER, MR RAHMAN, EB YUNUS, MA HUSSAIN, MM HUSSAIN, Z BEGUM

A three-step measure of community based intervention was made to create awareness of snake bite and its treatment in an Upazilla (sub-district) of Chittagong, Bangladesh. A year-long recording of cases in the intervened and control area found an increased number of cases of snake bite particularly venomous bite from the intervened area. Treatment seeking from the traditional healers remained unchanged. Improvement of application of tourniquet, application of immobilization technique and referral of potentially life threatening envenoming from the intervened area has been noted.

*J Bangladesh Coll Phys Surg. 2001; 19:43-46*

### **Avoidable factors for maternal mortality – a community-based investigation in Bangladesh**

F HUSSAIN, AB BHUIYAN, YA HAQUE, MS FLORA

This study was a descriptive one with a cross-sectional design. It was done in Gopalganj district from September 1997 to August 1998. Two hundred five maternal deaths from 1994 – 1997 were investigated. The study was done with the objective to determine care seeking behavior of mothers who died, identify causes of delay in “three delay model” and to seek out avoidable factors in those deaths. Data analysis was done using Chi-square test. Only 49 (23.9%) out of 205 mothers who died attended health facility, 77.6 percent families had knowledge about where to go with an emergency obstetric (EO) problem and 77.6 percent knew how to reach the health facility. Those patients attended health facility whose families had knowledge about where to go ( $p < 0.001$ ) and how to go ( $p < 0.001$ ). Problem unrecognized (45.1%), economic constrains (27.5%) and time constrains (9.9%) acted as barriers in seeking care in families who did not seek care. 7.5 percent maternal deaths at health facility were categorized as avoidable and substandard care was observed in 82.9 percent cases. underlying medical causes of maternal death are a range of social, economic, cultural and quality of care factors that greatly contribute to women's health before, during and after pregnancy.

*J Bangladesh Coll Phys Surg. 2002 ;20: 124-131*

### **Study to Document Pre Admission Risk Factors for Development of Severe Malaria and the Spectrum of It and Outcome in Different Categories of Hospitals in Malaria Endemic Zone of Bangladesh**

EB YUNUS

As per inclusion and exclusion criteria based on World Health Organization formulated case definitions 1303 cases were screened. Out of these 909 severe malaria cases were selected at 3 different categories of hospitals of Chittagong zone. Hospitals were one Tertiary Health Care, 2 Secondary Health Care and 4 Primary Health Care providers which were, Chittagong Medical College Hospital, District General Hospitals and Thana Health Complex Hospitals respectively. The study area is the most malaria endemic zone of Bangladesh at the south-eastern part of the country. In this zone a National Malaria Control Program based on WHO sponsored country specific 'Early Diagnosis Prompt Treatment' strategy has been in operation since 1994. In view of the high mortality and morbidity in presence of good care providing network and availability of effective drugs, this study envisaged documenting some preadmission factors in order to describe and if possible relate their influence on the outcome of SM cases. Moreover it tried to document the pattern and outcome of severe malaria cases at different tiers of hospitals. It was done over a period of 6 months in 1996 covering peak and off-peak seasons of malaria transmission. Data collector, who were designated Medical Officers of respective centers, were trained through workshop on the study, protocol, definitions, diagnosis, management and documentation. It was found that males in their 3rd decades were most frequent, significant numbers of pregnant cases, delays in initiating appropriate treatment, failure to recognize and prior use of first line antimalarials and significant mortality. The clinical patterns were different amongst different categories of hospitals, with severe ones were more at tertiary health care center with highest fatality, but as a whole all patterns are more frequent at secondary health care facility. We conclude that more awareness and orientation training are needed both for the community and the professionals working in the endemic zone to ensure early diagnosis and prompt treatment. Secondary Health Care Hospitals should be more equipped for handling severe malaria cases and Chittagong Medical

College Hospital should be made as a center of excellence for the same as it is the only tertiary health care provider at the perimeter of the malaria endemic zone of Bangladesh. Malaria issue should be incorporated in national MCH program. Further studies are needed including those directed to KAP.

*J Bangladesh Coll Phys Surg 2004; 22 : 83-88*

### **A Comparative Study of Root Canal Shaping by Automated Rotary Ni-Ti and Conventional Hand Instruments**

MS ALAM, AKM BASHAR

A total 30 root canals, curvature ranging between 0 and 35 degree, were divided into three groups, A, B and C, consisting of 10 canals in each. Five canals from each group were prepared with FlexMaster using crown-down technique and the others with hand instrument K-Felxofile using conventional and step-back technique. Irrigation was done with sodium hypochlorite (NaOCl) solution and ethylene diamine tetra-acetic acid (EDTA) after canal preparation by each instrument size. All the prepared roots were then cut longitudinally using diamond burs in turbine handpiece. Canal preparation was examined separately with scanning electron microscope (SEM). The preparation time was also recorded. Data were analyzed statistically using the non-parametric test (Mann-Whitney U test). Completely cleaned root canals were not found with any of the two instruments. FlexMaster instruments maintained the original canal shape and curvature with uniform and regular dentine surface. The time taken to prepare root canal by FlexMaster was significantly better ( $p < 0.01$ ) than hand instruments.

*J Bangladesh Coll Phys Surg. 2005; 23: 118-123*

### **Role of Intravenous Immunoglobulin (IVIG) as an Adjuvant in the Treatment of Neonatal Sepsis in Preterm Babies**

Ahmed SS, Chowdhury MAK, Hoque MM, Begum D, Ahmed ASMNU

Neonates are considered immunocompromised in view of their relatively immature immune defense mechanisms. Intravenous immunoglobulin (IVIG), in combination with antibiotic therapy in sepsis, has been reported to decrease the mortality and morbidity in preterm

neonates. Sixty preterm neonates with sepsis were randomly assigned into study and control groups. Study-group was given IVIG in addition to standard treatment. The outcome measures were immunoglobulin levels before and after IVIG therapy in study-group, duration of hospital stay and mortality rate between the groups. IgG level was  $529.16 \pm 147.73$  mg/dl and  $886.83 \pm 120.73$  mg/dl; IgM  $7.74 \pm 2.14$  mg/dl and  $11.08 \pm 2.84$  mg/dl, and IgA  $5.34 \pm 2.24$  mg/dl and  $9.28 \pm 3.26$  mg/dl before and after IVIG infusion. This difference was found statistically significant ( $p < 0.0001$ ). The mean duration of hospital stay of study and control group was  $14.53 \pm 3.88$  days and  $18.30 \pm 6.88$  days respectively. This difference was also statistically significant ( $p < 0.05$ ). The mortality rate was much lower in study group (13.3 %) compared to the control group (33.3%). Low levels of immunity in preterm neonates results in increased morbidity and mortality in severe infection. Use of IVIG along with the antibiotics and other supportive therapy can improve the outcome.

*J Bangladesh Coll Phys Surg 2006; 24: 97-104*

### **Laboratory Errors: Types and Frequency in a Tertiary Hospital in Bangladesh**

N CHOWDHURY, M IBRAHIM, MAH KHAN

**Introduction:** In our country, very few of clinical laboratories are running proper quality control program and to the best of our knowledge the preanalytical, analytical, and postanalytical rates of laboratory errors have not been studied extensively. In this study we evaluated the preanalytical, analytical, and postanalytical components of laboratory errors in 3,200 consecutive specimens of a clinical chemistry laboratory in a tertiary hospital for measurement of different analyte concentrations in plasma or serum. **Materials and methods:** This study was conducted during the period from June 2009 to July 2010 on 3,200 specimens. Analytical errors were detected by repeat analysis of primary sample and by checking quality control. **Results:** The numbers of preanalytical, analytical and postanalytical errors were 23, 14 and 76 respectively among 32000 tests that we have done on 3,200 specimens (average 10 tests per specimen). Moreover, the causes of errors were analyzed and it was found that

preanalytical errors were mostly due to specimen drawn distal to IV infusion, specimen for potassium first drawn into GREY tube (containing sodium fluoride and K EDTA) and then transferred into GREEN tube, long tourniquet time and underfilling of blood collection tube. The analytical errors were due to random and systemic errors and postanalytical errors were due to transcription errors. **Conclusion:** Results of our study suggest that errors mostly occur in the postanalytical part of testing and they are due to transcription errors. To reduce the laboratory errors we suggest introduction of Laboratory Information System (LIS) of the clinical laboratories connected with Hospital Management System along with stringent quality control program in preanalytical, analytical and postanalytical stages.

*J Bangladesh Coll Phys Surg 2015; 33(1): 3-6*

### **Efficacy and Safety of Vildagliptin Compared to Sulphonylurea in Patients with Type 2 Diabetes during Fasting in Ramadan**

MF PATHAN, MF AMIN, F AFSANA, MSA RAHIM, MJA SARKER, T MALI, MMM RAHMAN, F HASAN

The objective of this study is to evaluate the efficacy and safety of vildagliptin compared to sulphonylurea (SU) in Type 2 Diabetes during Fasting in Ramadan. This was a prospective, observational cohort study, which enrolled patients from Bangladesh. Patients aged >18 years with T2DM and HbA1c <8.5% were treated with vildagliptin or SU as add-on to metformin or as monotherapy for 16 weeks. The primary outcome of interest was to compare the proportion of patients with >1 hypoglycemic event(s) (HE) during fasting between the vildagliptin and SU groups. Changes in HbA1c, body weight and treatment adherence were also measured. Of the 100 patients enrolled, 97 completed the study and 3 patients discontinued prematurely. Patients experiencing >1 HE(s) were fewer in the vildagliptin group compared with SU group (4.3% vs. 8.2%;  $p=0.678$ ). The reduction in HbA1c was 0.1% with vildagliptin from a baseline of 7.1%, however, there was no change with SU from a baseline of 7.2% (between-treatment difference: 0.1%;  $p=0.600$ ). A gain of 0.35kg and 0.08 kg was seen with vildagliptin and SUs treatment,



respectively. Overall, the incidence of adverse events was similar between the vildagliptin and SU groups (23.4% vs. 20.4%) with no new safety signals. The treatment with vildagliptin was associated with fewer hypoglycemic events compared with SU and was well tolerated in Muslim T2DM patients fasting during Ramadan.

*J Bangladesh Coll Phys Surg 2015; 33(3): 120-125*

### **Sciatic Nerve Block in Single Nerve Block Technique for Unilateral Foot Surgery – an Alternative to Spinal Anaesthesia**

MHAQUE, MHUSSAIN, MZ FARUQUEE, MRALAM, MZ ISLAM

**Background:** In lower extremity surgeries, central neuraxial block or peripheral regional anesthesia technique can be used, mainly in elderly patients. This study investigates the efficiency of spinal anesthesia and sciatic nerve block techniques in lower extremity surgery. Spinal anesthesia may impair hemodynamic stability; peripheral nerve blocks targeting the sciatic nerve may be a useful alternative.

**Objective:** To compare Unilateral Spinal Anesthesia versus Popliteal Block in patients undergoing elective foot surgery to determine the method of better outcome.

**Patients and Methods:** This randomized comparative study was carried out on fifty co-operative patients of both sexes who were scheduled for elective foot surgeries. According to the used method of regional anesthesia, patients were divided into: (S) group unilateral intrathecal block with low-dose (7.5mg) of hyperbaric bupivacaine plus intrathecal fentanyl (25 mcg) and (P) group in which the sciatic nerve at the popliteal fossa was blocked via posterior approach by injecting 20ml 0.5% bupivacaine (100mg). The difficulty of the block performance, level of patient discomfort, block performance time, onset of sensory and motor blocks, time in hours to the first request for supplemental systemic analgesia postoperatively, its total consumption for 24 hours postoperatively and associated side effects were recorded in each group.

**Results:** Statistically, it was found no significant differences between the demographic characteristics as

well as the duration of surgery between the groups. The groups did differ significantly in the difficulty of the block performance. However, a longer duration for performing the block was observed in the P group. The level of patient discomfort was significantly lesser in the P group. The onset of complete sensory block was significantly longer in the P group. Hemodynamic profiles of our patients were found to be remarkably stable throughout the intraoperative period. In the P group, the time to first pain medication was significant longer. Moreover, the total dosage of analgesics during the first 24 hours postoperatively in group P was highly significant lesser compared to the other groups.

**Conclusion:** Sciatic nerve block at the popliteal fossa is an ideal alternative where it is preferable to avoid spinal anesthesia for foot surgeries in haemodynamically unstable patients.

*J Bangladesh Coll Phys Surg 2019; 37(4): 181-185*

### **HRCT Chest Evaluation of COVID-19 Patients: Experience in Combined Military Hospital Dhaka, Bangladesh**

SZ ALAM, SMAA MUID, A AKHTER, AKMS RAHMAN, MA EMRAN, MTA MOSTAKIM

**Background:** HRCT Chest is an important tool in both diagnosis and management of COVID-19 patient, as well as it is an important complement to the reverse-transcription polymerase chain reaction (RT-PCR) tests.

**Purpose:** The purpose of this study is to assess different patterns of manifestation in HRCT chest in COVID-19 infection & to grade the severity by observing a sample of 128 after the symptoms began.

**Method:** From 11 April 2020 to 27 May 2020, 128 patients who were admitted in Combined Military Hospital Dhaka and underwent both HRCT chest and RT-PCR for COVID-19 were included. Distribution and patterns of pulmonary lesions like ground glass opacity (GGO), consolidation, reverse halo sign, crazy paving, thickened vascular marking, lymphadenopathy and pleural effusion were evaluated.

**Result:** Total 128 patients diagnosed (RT-PCR Positive) with COVID-19 were included. Among them, 112(87.5%) patients had fever, and 58(45.31%) patients had

fatigability. The most frequent CT abnormality was ground glass opacity in 123(96.09%) cases. Amongst them 81(63.28%) cases had GGO plus consolidation and ground glass opacity alone were 42(32.81%) cases. Crazy-paving pattern was in 65(50.78%) cases. Most patients had multiple lesions and involved all the 5 lobes in 96(75.00%) cases. The lesions were mostly peripheral (123,96.09%) and posterior (103,80.47%) and in 65(50.78%) cases the distribution were diffuse but predominantly peripheral. Most commonly involved lobe is right lower lobe (120,93.75%) and left lower lobe(117,91.41%).

Conclusion: HRCT chest can play an important role in the early diagnosis and prompt management of this global health emergency.

*J Bangladesh Coll Phys Surg 2020; 38(0): 21-28*

### **Changing Clinical Pattern of Dengue Fever and Its Unusual Manifestations – 2019 Outbreak in Dhaka, Bangladesh**

QT ISLAM, HB SAGOR, TC TULI, FM NOOR, MM ISLAM

Background: In 2019 Bangladesh faced largest outbreak of Dengue fever (DF) and clinicians observed some changing patterns in presentation and laboratory findings of DF. This study intends to find the changing patterns of dengue and its different manifestations including unusual one.

Material and Method: This study deals around 220 dengue patient visited to popular Medical College Hospital as inpatient of medicine department during the period 1st July 2019 to 31st December 2019. Chi-square statistics was used find the intra and inter association among the disease mainfestatons and multinominal logistic regression analysis was used to compare disease severity.

Results: Among 220 dengue serologically positive cases, the most common age group affected was 18-49 years (68.6%). Regarding the known common features like fever (91.8%), vomiting (50.2%), headache (48.2%), were frequent among the patients but myalgia (19.6%), rash (14.5%), retro orbital pain (14.1%) were not so common. Presence of unusual features like abdominal pain (49.3%), loose motion (55%) and cough/ breathlessness

(41.4%) ascites (53.2%), pleural effusion (51.8%), hepatomegaly (32.3%), peri-gallbladder edema (35.5%) and splenomegaly (15.1%) were also common among dengue patients. Serum Lipase was also increased in (28.8%) cases suggesting pancreatitis.

Conclusion: Unusual Manifestations of dengue fever is common. As the spread of dengue is increasing with significant morbidity and mortality, it is extremely important for the clinicians to know about its unusual manifestations.

*J Bangladesh Coll Phys Surg 2021; 39(1): 9-18*

### **Discussion:**

Journal archives act as an invaluable asset for the scientific community<sup>5</sup> and the *JBCPS* is not an exception. It has been serving over 40 years; over this period, it accommodated more than 1200 articles, nearly half of them are original research papers and one-fourth being case reports. Though most papers are from local authors, research articles from other countries are also published.<sup>26</sup> Articles of original investigations are always of interest, have educational values<sup>27</sup>, novel findings are thought-provoking and good quality evidences from clinical trials are often practice changing. Most of the original research articles published in the *JBCPS* are observational studies and only a few are clinical trials.<sup>20,28,29</sup> Case reports are also of great importance; an atypical presentation of a case<sup>30</sup>, a new treatment option and its outcome or finding an uncommon, emerging and re-emerging<sup>31</sup> or imported cases<sup>32</sup> create awareness among physicians and help in establishing the diagnosis in subsequent instances. Many clinical cases have characteristic radiological findings and are accommodated in clinical image sections of the *JBCPS* and it is a relatively new addition to the index with educational values.<sup>33</sup> Review articles are usually invited ones and give an in-depth and updated knowledge to the topics<sup>34</sup>; the *JBCPS* has published nearly 140 review articles in its life. Editorials were not published in the initial years of the journey of the *JBCPS* and till date, over one hundred editorials are published. Editorials often focus on burning problems and may comment on disputed issues.<sup>35,36</sup>

Being a general medical journal, the *JBCPS* receives manuscripts from almost all specialties of medical sciences and publishes suitable ones after completing the peer review process. Review of the published articles in the *JBCPS* revealed that it covered almost every

specialty. Most papers were cross-sectional studies while few described findings of new techniques.<sup>7,8,19</sup> Identifying disease spectrum<sup>13,37</sup> can help planning and implementing interventions in health sector, so observational studies and surveys are also important.

It was a difficult task to select remarkable ones from such a large volume of articles. After discussion among the working group members for this present article, criteria was set and implied. Review of the selected articles reveals that these covered a wide range of topics and the findings were important in the context of health sector of Bangladesh; it covered communicable and non-communicable diseases, maternal and child health, medical education and public health.

The present work had some potential limitations. No established method was used for selection of abstracts. There remained a scope of specialty bias, though every effort was taken to eliminate it, including selection of contributors for this paper from different disciplines. We could not include number of citations of individual articles in selection criteria.

In conclusion, the *JBCPS* has been serving as an important platform for publishing scholarly research articles over 40 years, not only from the Bangladeshi authors but also from global authorships and addressing a wide variety of specialties and ultimately contributing to the improvement of clinical practice. There is always scope of upholding the standard of the *JBCPS* to the next step and the *JBCPS* is expected to play a leading role in the field of publication of biomedical research from the local, regional and global authors.

#### Acknowledgement:

We express our acknowledgements to the staffs of BCPS Library and office of the *JBCPS* for their cooperation.

**Abbreviations:** MAR – Muhammad Abdur Rahim, RN – Rumana Nazneen, TS- Tasnuva Saiful, SA- Sayeda Afroza, RAB- Rowshan Ara Begum.

**Conflicts of interest:** Nothing to declare.

#### References:

1. Stevens LM, Lynn C, Glass RM. Medical Journals. *JAMA*. 1860; 295 (15): 1860. doi:10.1001/jama.295.15.1860. ISSN 0098-7484.
2. Booth CC. Medical communication: the old and new. The development of medical journals in Britain. *British Medical Journal (Clinical Research Ed.)*. 2006; 285 (6335): 105-108. doi:10.1136/bmj.285.6335.105. ISSN 0267-0623. PMC 1498905. PMID 6805825.
3. Kahn RJ, Kahn PG. The Medical Repository — The First U.S. Medical Journal (1797–1824). *New England Journal of Medicine*. 2009; 337 (26): 1926-1930. doi:10.1056/nejm199712253372617. PMID 9407162.
4. Hudzik B. What makes a good medical journal great? *CMAJ*. 2016 April 19; 188 (7): 531. DOI:10.1503/cmaj.1150100
5. Rivas-Ruiz R. The importance of national medical journals in a global world. *Rev Med Inst Mex Seguro Soc*. 2019 Dec 30; 57(6):334-336.
6. Ally SAI, Alrenga DP. Frozen section diagnosis: an analysis. *J Bangladesh Coll Phys Surg*. 1987 Aug; 5(1): 13-16
7. Begum A. Vesico-vaginal fistula: surgical management of 100 cases. *J Bangladesh Coll Phys Surg*. 1989 Feb; 6(2): 29-32.
8. Hasan M, Rahman MT, Alam AKMK, Khan AKA. Endoscopic retrograde cholangiopancreatography: experience of 150 cases at IPGMR, Dhaka. *J Bangladesh Coll Phys Surg*. 1990; 8(1): 8-13.
9. Chowdhury MAJ, Alam MN, Uddin AKMR, Hussain A, Rahman H, Siddiqui AB, et al. Clinical profile of kala-azar in Rajshahi: a prospective study of 273 hospitalized patients during one year. *J Bangladesh Coll Phys Surg*. 1990; 8(1): 18-28.
10. Chowdhury W, Ahmed SK, Islam H. Psychosexual outcome of females with permanent sterilization. *J Bangladesh Coll Phys Surg*. 1990; 8(1): 29-34.
11. Rahman S, Ahmed AFK, Rahman K, Abdullah M, Hussain S, Amin R, et al. Day care service in Bangladesh: a six year study. *J Bangladesh Coll Phys Surg*. 1991 May; 9(1 & 2): 20-23.
12. Khan M, Zaki KMJ, Ahmed N, Rahman J, Islam MN, Ali SM. Natural course of viral B hepatitis in Bangladeshi population. *J Bangladesh Coll Phys Surg*. May 1992; 10(2): 39-46.
13. Islam MS. Pattern of eye diseases in rural area of Kishorjang district. *J Bangladesh Coll Phys Surg*. 1996; 14(2): 64-68.
14. Ahmed MM, Hiron MM, Ahmed MF, Hasan MR, Bhuiyan SS, Hossain MA, et al. Comparison between fine needle aspiration cytology (FNAC) and fiberoptic bronchoscopy (FOB) in the diagnosis of peripheral lung lesion. *J Bangladesh Coll Phys Surg*. 2000; 18; 102-107.
15. Rahman SA. Analysis of undergraduate paediatrics written questions in terms of Bloom's taxonomy of educational objectives. *J Bangladesh Coll Phys Surg*. 2000; 18 (special suppl.): 15-18.
16. Faiz MA, Tahim M, Ahmed T, Rashid R, Patil R, Ataher QS, et al. A community-based study to see the impact of health education programme on mode of initial treatment and reporting of cases of snakebite to Upazilla hospitals in Chittagonj, Bangladesh. *J Bangladesh Coll Phys Surg*. 2001; 19:43-46.

17. Hussain F, Bhuiyan AB, Haque YA, Flora MS. Avoidable factors for maternal mortality - a community based investigation in Bangladesh. *J Bangladesh Coll Phys Surg.* Sept 2002; 20(3): 124-131.
18. Younus EB. Study to Document Pre Admission Risk Factors for Development of Severe Malaria and the Spectrum of It and Outcome in Different Categories of Hospitals in Malaria Endemic Zone of Bangladesh. *J Bangladesh Coll Phys Surg.* 2004; 22: 83-88.
19. Alam MS, Bashir AKM. A Comparative Study of Root Canal Shaping by Automated Rotary Ni-Ti and Conventional Hand Instruments. *J Bangladesh Coll Phys Surg.* 2005; 23: 118-123.
20. Ahmed SS, Chowdhury MAKA, Hoque MM, Begum D, Ahmed ASMNU. Role of Intravenous Immunoglobulin (IVIG) as an Adjuvant in the Treatment of Neonatal Sepsis in Preterm Babies. *J Bangladesh Coll Phys Surg.* 2006; 24: 97-104.
21. Chowdhury N, Ibrahim M, Khan MAH. Laboratory Errors: Types and Frequency in a Tertiary Hospital in Bangladesh. *J Bangladesh Coll Phys Surg.* 2015; 33(1): 3-6.
22. Pathan MF, Amin MF, Afsana F, Rahim MSA, Sarker MJA, Ali TM, et al. Efficacy and Safety of Vildagliptin Compared to Sulphonylurea in Patients with Type 2 Diabetes during Fasting in Ramadan. *J Bangladesh Coll Phys Surg.* 2015; 33(3): 120-125.
23. Haque M, Hussain M, Faruque MZ, Alam MR, Islam MZ. Sciatic Nerve Block in Single Nerve Block Technique for Unilateral Foot Surgery – an Alternative to Spinal Anaesthesia. *J Bangladesh Coll Phys Surg.* 2019; 37(4): 181-185.
24. Alam SZ, Muid SMAA, Akhter A, Rahman AKMS, Emran MA, Mostakim MTA. HRCT Chest Evaluation of COVID-19 Patients: Experience in Combined Military Hospital Dhaka, Bangladesh. *J Bangladesh Coll Phys Surg.* 2020; 38(0): 21-28.
25. Islam QT, Sagor HB, Tuli TC, Noor FM, Islam MM. Changing Clinical Pattern of Dengue Fever and Its Unusual Manifestations – 2019 Outbreak in Dhaka, Bangladesh. *J Bangladesh Coll Phys Surg.* 2021; 39(1): 9-18.
26. Nakarmi K, Basnet S, Karki B, Ghartimagar M, Nagarkoti K, Yadav M, et al. Burn Care in Kirtipur Hospital before and during COVID 19 Pandemic: Survey of Psychological Issues and Practice Behaviours of Burn Care Personnel. *J Bangladesh Coll Phys Surg.* 2021 39(4): 241-248. <https://doi.org/10.3329/jbcps.v39i4.55945>
27. Anonymous. Original Research as a Means of Education. *Nature.* 23 Aug 1873; 8: 538-539.
28. Faiz MA, Ahmed M. In-vivo assessment of the sensitivity of Plasmodium falciparum to single dose pyrimethamine-sulfadoxin in Bangladesh where chloroquine resistant falciparum malaria has been detected. *J Bangladesh Coll Phys Surg.* 1986 Aug; 4(1): 7-9.
29. Rahman R, Faiz A, Samad R, Yunus EB, Hossain A, Paul DC, et al. A Controlled Trial on the Efficacy of Mefloquine in an Area with Reported Prevalence of Multi-drug Including Mefloquine Resistant Falciparum Malaria in Bangladesh. *J Bangladesh Coll Phys Surg.* Sept 2005; 107-112.
30. Rahim MA, Mitra P, Zaman S, Uddin KN. Emphysematous Pyelonephritis Complicating an Undetected Diabetic Female: A Case Report. *J Bangladesh Coll Phys Surg.* 2018; 36(2), 80-81. <https://doi.org/10.3329/jbcps.v36i2.36071>
31. Rahim MA, Zaman S, Uddin KN. Chikungunya-Dengue Co-Infection: Reports of Two Cases from Bangladesh. *J Bangladesh Coll Phys Surg.* 2019; 37(2): 86-88. <https://doi.org/10.3329/jbcps.v37i2.4056>
32. Rahman MM, Hossain SM, Dewanjee AK, Sultan MT, Faiz MA, Rahman J. Disseminated histoplasmosis in acquired immunodeficiency syndrome – a case report. *J Bangladesh Coll Phys Surg.* 2005; 23: 43-45.
33. Ahmed M, Sultana M. COVID-19 Pneumonia Complicated by Acute Pulmonary Embolism. *J Bangladesh Coll Phys Surg.* 2020; 38 (COVID-supplement): 82-83. <https://doi.org/10.3329/jbcps.v38i0.47348>
34. Nayeem A, Mohammad QD, Susan ZS. A Systematic Review on Immunotherapy for Guillain- Barre Syndrome. *J Bangladesh Coll Phys Surg.* 2022; 40(1): 57-64. <https://doi.org/10.3329/jbcps.v40i1.57060>
35. Faiz M. Coronavirus Disease 2019 (COVID-19): An Opportunity to Understand the Health System. *J Bangladesh Coll Phys Surg.* 2022; 38 (COVID-supplement): 1-2. <https://doi.org/10.3329/jbcps.v38i0.47437>
36. Rahim MA, Mostafi M. Re-purposive Use of Drugs in COVID-19: A Wake-up Call. *J Bangladesh Coll Phys Surg.* 2020; 38 (COVID-supplement): 3-4. <https://doi.org/10.3329/jbcps.v38i0.47438>
37. Haq SF. Cancer incidence in Bangladesh. *J Bangladesh Coll Phys Surg.* 1987; 5(1): 1-7.