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An Official Organ of Prime Medical College, Rangpur
E-mail: pmcrang@gmail.com, website: www.pmcrang.bd.org

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Prof. Dr. Nawazesh Farid
Prime Medical College
Pirjabad, Rangpur.
E-mail : pmcrang@gmail.com

Informations about Prime Medical College, Rangpur

Prime Medical College is one of the best and largest private medical college in Bangladesh. It was established in 2008. The ideas of establishing this Medical College is to provide standard Medical Education and Health Services to the people at an affordable cost.

The objectives of the institute are :

- To promote and provide education in Medical Science and to Provide training in different discipline of medicine recognized by the postgraduate institutes and universities.
- To conduct research work on the diseases prevalent in the country.
- To conduct research on medical education with the aim of uplifting the quality and standard of medical education in the country.
- To produce and provide skilled manpower in the medical, nursing and paramedical fields.
- To provide quality medical care and heath services to the people at reasonable cost.

The first and foremost objective of establishment of this medical college is to offer MBBS degree under Rajshahi University of Bangladesh and to provide good quality medical graduates, who can fulfill the need of health care prevailing in the country.

Editorial

Polypharmacy: One of the greatest prescribing challenges in general practice in developed & developing countries.

Baqui Q.B.O.F

Polypharmacy is arguably one of the most pressing prescribing issues. There is no formally accepted definition, but it is usually considered as concurrent prescribing of at least four or five drugs. In a German study, over a quarter of older patients in primary care were found to be on five or more medicines[1], and a recent Italian study found that over 35% of older patients were exposed to Polypharmacy[2]. Data from the Swedish prescribed Drug Register also show a prevalence of over 5% of patients in their 40s, and around 12% of those in their 50s who are taking multiple medicines[3]. Rates are increasing in almost all ages, although more so in older people, and crucially, Polypharmacy is associated with undesirable outcome[4]. It is not only prevalent in developed countries but also remarkably found in developing countries especially in Bangladesh[5]. Drug can cure ailments if it is used appropriately that is rationally but it can cause harm to the patients and even threaten life if it is used inappropriately, that is irrational prescribing. Many factors are responsible for irrational prescribing. Polypharmacy is one of them.

Larger studies are required to explore this in further detail, accounting for factors such as drug indication, comorbidities, medication interactions, and duration of treatment. Polypharmacy also has the potential to influence many aspects of safe prescribing, including adverse drug reactions, risk of medication interactions, and adherence. Furthermore, the appropriateness or efficacy of a drug given in combination with many other medications may be unclear. Human error is also likely to be exacerbated due to the complexity of patients' medication regimes. A lack of familiarity with some newer drugs, particularly those initiated in secondary care, may aggravate these issues still further.

Polypharmacy is associated with age, morbidity, and poor self-rated health[6]. Also older people are particularly prone to adverse consequences due to age related physiological changes altering the pharmacokinetic and pharmacodynamic characteristics of many medicines[7]. Given that life expectancy is increasing, and multiple morbidity is more common in older patients, the problem of polypharmacy is likely to become worse.

According to WHO more than 3 or more drugs per encounter of per diseases is known as Polypharmacy. Polypharmacy is a major issue in terms of quality of health and the appropriateness of prescribing.

Overuse of medication carries major health risks, especially among the elderly. There is a significant link between Polypharmacy and the emergence of adverse effects, drug interactions, which increases mortality[8].

Many under lying factors are responsible for Polypharmacy. As for example:

- Inaccurate diagnosis
- Biased by the pharmaceuticals companies.
- Prescriber prescribing from his or her own clinical choice
- Lack of monitoring
- Modeling behavior of senior colleagues.

In both developed and developing countries, the actual use of drugs often bears little resemblance to principles of scientific therapy based on sound experimental or clinical data. The costs of such irrational drug use like polypharmacy are enormous in terms of both

Prof. Dr. Q.B.O. Fazlul Baqui

Professor & Head of the department of Pharmacology & Therapeutics
Prime Medical College, Rangpur, Bangladesh.

polypharmacy are enormous in terms of both scarce resources as well as the occurrence of adverse events and increased suffering to the patients. To get maximum therapeutic benefit, to utilize scarce resources properly and to reduce patient's sufferings, it is thus, mandatory to prescribe and utilize rationally.

Multiple use of antimicrobials causing not only untoward and toxic effects but also producing various infections caused by resistant microorganisms. In developing countries particularly in Bangladesh 100 of people succumb to infections that no longer respond to many of antimicrobials[9].

In Australia in order to reduce the antibiotic over use and irrational prescribing of antibiotic, a booklet for antibiotic guidelines was introduced. After introduction of booklet, the rational use of antibiotic was significantly improved[10].

Incidence of adverse the reactions increases the number of medications use and high medication cost.

In England many hospital produced their own guide books through antibiotic wonderland and in others attempts are made to produce antibiotic policy to control the restricted use of antibiotics and devastating effects that this may have on the local microbial flora[11].

Antibiotics are vital drugs, but they are over prescribed and over used for the treatment of minor disorders such as simple diarrohoea, cough and cold. When antibiotics are used to often in sub optimal dosages, bacteria become resistant to them. The result is obviously treatment failure when patients suffering from serious infection like antimicrobial.

Polypharmacy and overuse of antimicrobials. In order to prevent these, the following measures are suggested.

- Standered Ttreatment Gudie Line (STG) for the common diseases prevailing in the country should be made available to all levels of prescribers.
- Printed materials which are readable, usable and easily understandable, on drug information's should regularly made available to the prescribers
- A broad base regular and periodical training, orientation of the prescribrers at all the levels arranged reagarding the retional prescribing at ,Union Sub centre, Community Clinic,Thana Health Complex, Distric Hospital and Tertiary Hospital.
- To prevent overuse of misuse of microbials, national antimicrobial policy (NAP) should be formulated and this NAP should be as a part of National Drug Policy (NDP).
- Regular supervision and monitoring should be done on these issues.
- Like the prescribers public should also be trained effectively create an awareness regarding the hazards of unnecessary drug therapy as well as to make the medication and complete the duration of treatment as per advice of the prescribers
- Prescriber should make accurate diagnosis and limit the number of drugs.
- Prescribers always should prescribed rationally That is drug must be prescribed that it be available at the right time, at a price people can effort, that it be dispensed correctly, that it be taken in the right dosages at the right intervals and for the right length of time which is effective, acceptable quality, and safety12.

REFERENCES

1. Prevalence and predictors of polypharmacy among older primary care patients in Germany Fam Pract. 2007;24(1):14-19
2. Prevalence and risk of Polypharmacy among the elderly in an outpatient setting: a retrospective cohort in the Emilia-Romagna region, Italy. Drugs Aging.2010; 27(12): 1019-1028.
3. Increasing polypharmacy – an individual – based study of the Swedish population 2005-2008. BMC Clin Pharmacol 2010;10:16.
4. Inapropriate polypharmacy: reducing the burden of multiple medication. Clin Med .2007;7(5): 514-517.
5. HRCAR perspective on drug utilization, INRUD news Oct. 1990;1(2):4-5.
6. Factors associated with multiple medication use in different age groups. Ann Pharmacother .2009; 43(12): 1978-1985.
7. Appropriate prescribing in elderly people: how well can it be measured and optimised. Lancet. 2007 ;370(9582): 173-184.
8. Frazier S. "Health out comes and polypharmacy in elderly individuals: an integrated literature review".J Gerontol. Nurs. 2005; 31(9): 4-11.
9. Rashid HU, Choudhury SAR, Islam N: Pattern of anibiotic use in two teaching hospital. Tropical Doctor.1986; 16:152-154.
10. Harvey, Stwart K, Hemming M and Moul R: use of antibiotic agent in a large teaching hospital, the impect of antibiotics guidelines. Med J Aus. 1983; 2:217-221.
11. Williams JD. Antibiotic guidelines. British Medical Journal 1984; 288(6414): 343-44.
12. Hulchinson RA, Lewis RK, Haloum AT. In consistency in the drug use process dispensing. 1990; 24:633-636.

Original article

Study of Peak Expiratory Flow Rate in male smoker and non-smoker tobacco industry workers.

Zahid A.T.M.ZR[1], Sarkar CR[2], Mostofa MMW[3], Begum SA[4], Begum AA[5]

ABSTRACT

INTRODUCTION: *Tobacco industry workers exposed to tobacco dust and smoke in their work places usually have varying degree of impaired pulmonary functions; but the level awareness about these occupational hazards among the tobacco industry workers and authorities are limited.* ***OBJECTIVE:*** *The present study was conducted to observe the effects of tobacco dust and smoke on pulmonary functions by measuring Peak Expiratory Flow Rate (PEFR).* ***METHODS:*** *This cross-sectional study was carried out from July-2008 to June-2009 in the Department of Physiology, Rangpur Medical College, Rangpur. For this 50 apparently healthy male smoker and 40 non-smoker tobacco industry workers were studied and they were compared with 50 non smoker, non tobacco industry workers. PEFR of each subject was measured by digital spirometer.* ***RESULTS:*** *Smoker and non-smoker tobacco industry workers have significantly lower measured and percentage of predicted value of PEFR than control subjects ($p < 0.001$) and smoker tobacco industry workers also have significantly lower of these values of PEFR than non-smoker tobacco workers ($p < 0.001$)* ***CONCLUSION:*** *Both smoker and non-smoker tobacco industry workers showed more impaired pulmonary functions than non-smoker non tobacco industry workers.*

KEY WORD: PEFR

INTRODUCTION

Tobacco industries provide livelihood to tobacco workers who are engaged in tobacco cultivation, processing and rolling of beedis /cigarettes. Environment of tobacco industries are usually polluted by tobacco dust. Inspirable dust concentration is about 150-fold higher in tobacco factories[1]. Endotoxin concentration also increased in the air of tobacco factories[2]. Workers of tobacco industries are chronically and predominantly exposed to tobacco dust and majority workers of tobacco industries are usually smokers; non-smoker tobacco workers are also exposed to passive smoking at their work places[3]. Inhalation is the common route of absorption of air born contaminants caused by tobacco dust and smoke and impairment of lung functions is related to inhalation of dust[4]. Tobacco dust exposure induces oxidative stress among tobacco workers that leads to impairment of lung functions and lung diseases[5]. Tobacco smoke is a bioaerosol that contains endotoxin, peptidoglycan fragments, lypopolysaccharide, various fungal and bacterial constituents[6]. Tobacco smoke also contains a large number of free radicals, including peroxyl radicals, superoxide anion and nitrogen oxide[7]. Tobacco dust contains agents that cause nonimmunolgically mediated bronchoconstriction[8]. So, it may be said that tobacco industry workers exposed to tobacco dust and smoke in their work places have

1.* A.T. M. Zoadur Rahim Zahid
Associate Professor of Physiology
Rangpur Medical College, Rangpur
Mobile – 01711048362;
E-mail – drzahid63@gmail

2. Chandra Rani Sarkar
Professor& Head of Physiology
Rangpur Medical College, Rangpur

3. Miah Md. Wadud Mostofa
Professor & Head of Physiology
Community Medical College, Rangpur.

4. Shirin Akhtar Begum
Assistant Professor of Community Medicine
Rangpur Medical College, Rangpur

5.Anjum Ara Begum
Professor & Head of Anatomy
Prime Medical College, Rangpur.

*Corresponding author:

impaired pulmonary functions. There are many tobacco factories in many parts of our country and here working a remarkable portion of our population but unfortunately they are not aware of about their impaired status of lung functions and to the best of our knowledge, assessment of tobacco workers lung functions status have not been done in our country. Considering this our present work has been designed to study the status of lung functions of tobacco industry workers by measuring PEFR by Autospiro (Digital Spirometer). The result of this study would help to create awareness among the tobacco industry workers and authorities and they may take appropriate measures for prevention of lung functions impairment.

MATERIALS AND METHODS

This cross-sectional study was carried out in the Department of Physiology, Rangpur Medical College, Rangpur, from July-2008 to June-2009. A total number of 140 apparently healthy male subjects with age ranged from 20 to 45 years were included in this study and all of them belonged to lower and lower-middle socioeconomic status and they are also approximately body surface area matched. Among them 50 were male smoker tobacco industry workers (Group – B) who smoke at least five stick per day for two years ,40 were male non-smoker tobacco industry workers (Group–C) and 50 were non-smoker non-tobacco industry workers (Control group–A). Tobacco industry workers stay eight hours per day in the tobacco factory and they are working there for at least two years. All the experimental subjects were selected from different tobacco factories of Rangpur district and control subjects were selected from the surrounding community. Significantly disabled subjects who were unable to perform Spirometric procedures and subjects with chest diseases like asthma, chronic obstructive pulmonary diseases, pulmonary tuberculosis or any form of acute illness were excluded from the study. Study protocol was approved by ethical committee of Rangpur Medical College, Rangpur. After selection of the subjects objectives and benefits of this study were explained to each subject and an informed written consent was taken. A detail personal, medical, family, socioeconomic, smoking and working history were recorded in a preformed questionnaire and thorough physical examinations were done and documented. Height and weight of the subject were measured for calculation of body surface area [9].Then the subjects were examined for PEFR by digital Spirometre. Data were expressed as mean ± SD and analyzed by Unpaired students 't' test as applicable. The statistical analysis was done by using SPSS version 12.

RESULTS

The mean ± SD age and body surface area of all the subjects were almost similar and the groups were matched for age and body surface area (Table I).

Table I: Age and body surface area of different groups.

Groups (n)	Age (years) (Mean ± SD)	Body surface area (m^2) (Mean ± SD)
A (50)	35.10 ± 8.47^{NS}	1.50 ± .09
B (50)	36.12 ± 8.94	1.47 ± .15
C (40)	35.98 ± 7.59	1.47 ± .11

Statistical analysis

	p value
A vs B	1.135 ^{NS}
A vs C	1.146 ^{NS}
C vs B	0.133 ^{NS}

Data are expressed as Mean ± SD; NS= non significant (>0.05); 'n' in parenthesis indicates number of subjects

PEFR of control subjects were within normal limit as statistically there were no significant ($p>0.05$) differences of mean predicted value of PEFR among the three groups (Table II).

Table II: Predicted values of PEFR in different groups.

Groups (n)	Predicted value (L /s)
A (50)	10.16 ± 0.41
B (50)	10.08 ± 0.42
C (40)	10.11 ± 0.34
Statistical analysis	
	p value
A vs B	1.008 ^{NS}
A vs C	0.660 ^{NS}
C vs B	0.370 ^{NS}

Data are expressed as Mean ± SD; NS= non significant (>0.05); 'n' in parenthesis indicates number of subjects

Smoker and non-smoker tobacco Industry workers have significantly lower ($p < 0.001$) measured and percentage of predicted value of PEFR than control subjects and smoker tobacco industry workers also have significantly lower ($p < 0.001$) of these values of PEFR than non-smoker tobacco industry workers (Table: III)

Table III: Measured and percentage of predicted value of PEFR in different groups.

Groups (n)	Measured value (L / s)	Percentage of predicted value (%)
A (50)	6.82 ± .1.84	67.22 ± 18.62
B (50)	3.69 ± 1.37	36.56 ± 13.53
C (40)	4.93 ± 1.87	48.62 ± 18.37
Statistical analysis		
	p value	
A vs B	0.000 ***	
A vs C	0.000 ***	
C vs B	0.000 ***	

Data are expressed as Mean ± SD; *** = p<0.001; 'n' in parenthesis indicates number of subjects

DISCUSSION

In this study, PEFR of three groups were within normal limit as statistically there were no significant differences of mean predicted value of PEFR among the groups. Smoker and non-smoker tobacco industry workers have significantly lower measured and percentage of predicted value of PEFR than control subjects. Again smoker tobacco industry workers have significantly lower of these values of PEFR than non-smoker tobacco workers. Similar findings were also reported by different researchers in different countries[10,11]. Various mechanisms have been proposed by different investigators for the impairment of lung functions of smoker and non-smoker tobacco industry workers. Some suggested that tobacco dust contains various active immunological as well as toxic substances and chronic inhalation of these substances associated with decreased PEFR[10]. It has been suggested by some body that exposure to tobacco dust gradually affect elastic recoil of lung tissues and airway resistances and thus decreased PEFR[11].

Though various suggestions made by different investigators as mentioned above as possible causes of lung functions impairment but it is difficult to comment on exact mechanisms in this type of study. In the present study, decreased lung functions observed by significant changes in PEFR in tobacco industry workers is likely due to chronic allergic effects of tobacco dust. Allergic effects of tobacco dust usually produce sufficient IgE in the body. IgE binds with mast cell and basophil and some of the mast cell and basophil rupture and release agents including slow-reacting substance of anaphylaxis (SRSA), protease, histamine, neutrophil and esinophil chemotactic factor at alveolar or bronchiolar site. These substances may cause dilatation of local blood vessels, increased capillary permeability with loss of fluid into tissues, contraction of local smooth muscle cells and even local cell damages by protease. Such type of chronic allergen-antibody reaction may impair lung functions by increasing lung parenchymal and airway resistances secondary to tissue damages and inflammation mediated fibrotic changes.

Presence of irritant substances including oxidants derived from inhalation of tobacco dust and smoke may arrest the activity of cilia lining the bronchi with decreased rate of airway clearances and subsequently there occur inflammatory responses, hypertrophy / hyperplasia of mucous glands which are causing progressive impairment of lung functions with increased work of breathing. So smoker tobacco industry workers have more impaired lung functions than non-smoker tobacco workers and. this is supported by significantly lower PEFR in smoker tobacco workers than non-smoker tobacco industry workers.

CONCLUSION

It can be concluded that both smoker and non-smoker tobacco industry workers suffer from significant impairment of lung functions and smoking causes more impairment in lung functions in smoker worker than non-smoker tobacco industry workers.

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REFERENCES

1. Bhisey RA, Bagwe AN, Mahimkar MB, Buch SC. Biological monitoring of bidi industry workers ccupationally exposed to tobacco. Toxicol Lett. Sep 5 1999; 108 (2-3):259-265.
2. Uitti J, Nordman H, Huuskonen MS, Roto P, Husman K, Reiman M. Respiratory health of cigar factory workers. Occupational and Environmental Medicine 1998;55:834-839.
3. Chen R, Tunstall-Pedoe H, Tavendale R. Environmental tobacco smoke and lung function in employees who never smoked: the Scotish MONICA study. Occup. Environ. And Med. 2001;58:563 - 568.
4. Sunter AT, Bagirici F, Dundar C, Marangoz A, Peksen Y. Lung Function in Workers Exposed to Tobacco Dust. Turk J Med Sci. 2001; 31:143 -146.
5. Swami S, Suryakar AN, Katkam RV, Kumber KM. Absorption of nicotine induces oxidative stress among bidi workers. Indian J Public Health. Oct- Dec 2006; 50(4): 231-5.
6. Larsson L, Szponer B, Ridha B, Sitkowska J.Identification of bacterial and fungal components in tobacco and tobacco smoke. Tobacco Induced Diseases.2008; 4 (1):1-10.
7. Pryor WA and Stone K. Oxidants in cigarette smokes, Radicals, hydrogen peroxide, peroxinitrate and eroxinitrite. Ann N Y Acad Sci..1993; 686:12-27.
8. Schachter EN, Zuskin E, Goswami S, Castronova V, Siegel P, Whitmer M et.al. Pharmacological Effects of Tobacco Dust Extract on Isolated Guinea Pig Trachea. CHEST 2003;123: 862-868.
9. Rahman MH and Mostakim MA. Pediatric Emergency Medicine, 1st edn. Rangpur, Banglasesh, 2002;173.
10. Chattopadhyay BP, Kundu S, Mahata A, Jane ASK. A study to asses the respiratory impairments among the male beedi workers. IJOEM 2006; 10(2): 69 -73.
11. Mukhtar M-SR, Rao GMM, Gamra NS, Afan AM, Zendah MI. Respiratory effects of occupational exposure to tobacco dust. Respiration 1991; 58: 271-276.

Original article

Visual Outcome and Satisfaction after Cataract Surgery (SICS with PCIOL) in older population.
(A Retrospective Study In Prime Medical College Hospital, Rangpur)

Islam R[1], Nazma S[2], Ripon SK[3], Polok DK[4]

ABSTRACT

BACKGROUND: *In our country blindness due to cataract in old aged people is very common. Visual outcome after cataract surgery by Small incision cataract surgery with posterior chamber intra ocular lens (SICS with PCIOL) implantation, newer method of cataract surgery, is satisfactory. Our objective was to observe the visual outcome after cataract surgery among old aged people.* ***MATERIALS AND METHODS:*** *An observational and retrospective study was carried out among 150 patients, aged 50 years and above. Among them, number of male patient was 80 and the female patient was 70 and coming from different professions. Data were collected from hospital records of patients admitted in Eye department for cataract surgery from 1st June 2013 to 30th July 2014 in Prime Medical College Hospital, Rangpur. After surgery satisfaction level was evaluated by simple written questionnaire.* ***RESULTS:*** *Results showed that out of 150 patients, 85 (56.66%) patients were 100% satisfied after SICS with PCIOL; 42(28%) patients were 75% satisfied about their visual outcome and 23(15.33%) patients had very less satisfaction (< 25%). The cause of unsatisfactory visual improvement was studied and it was observed that this may be due to macular degeneration, diabetic Retinopathy, glucoma, uveitis, amblyopia, corneal opacities and phthisis etc.* ***CONCLUSION:*** *Following SICS with PCIOL cataract surgery visual improvement was significant in old aged patients. Nearly 1 in 7 patients did not show satisfactory vision, which may be due to macular degeneration, retinopathy, uveitis, corneal opacity etc.*

KEY WORDS: Cataract surgery, SICS, PCIOL, cataract blindness.

INTRODUCTION

Cataract is the most common cause of blindness in the world. It is one type of reversible blindness. In Bangladesh 1% of population that is about six lac fifty thousand people are now suffering from blindness due to cataract, which is 80% of total blindness. Though old aged people mainly suffer from blindness due to cataract, however, childhood blindness is not uncommon in our country. In Bangladesh about four thousand children are suffering from blindness due to congenital or developmental cataract. According to WHO, globally 3,90,000,00 people are now suffering from blindness due to cataract and the incidences and prevalence of blindness is more in undeveloped and developing country. However, about 80% of total blindness due to cataract is correctable[1].

Blindness is both a cause and an outcome of poverty[2]. Cataract, defined by the World Health Organization as a visual acuity (V_A) of less than 3/60 in the better eye, is the leading cause of blindness in the world. Previously it has been observed that 18 million people had been suffering from blindness due to cataract, 90% of them were from low and middle income countries[3]. In some countries excess increase in cataract backlog is due to rapid expansion of population, particularly of the

1. * Dr. Rafiqul Islam
Assistant Professor of Ophthalmology.
Prime Medical College, Rangpur
email:dr.rafiq08@gmail.com
Cell:01716610321
2. Dr. Shamima Nazma
Assistant Professor of Ophthalmology.
Prime Medical College, Rangpur
3. Dr. Ripon Kumar Sarker,
Assistant Professor of Ophthalmology
Rangpur Medical College, Rangpur.
4. Dr. Polok Kumar Das
Assistant Professor of Ophthalmology
Khaja Yunus Ali Medical College, Sirajgonj.

* For correspondence

elderly and low cataract surgical output[4]. Main treatment option of cataract is surgery. Intra capsular cataract extraction (ICCE), Extra capsular cataract extraction (ECCE) and Couching were old methods or techniques of cataract surgery but those techniques had more complications and less patient's satisfaction. So, now a day Small incision cataract surgery with posterior chamber intra ocular lens (SICS with PCIOL) implantation and Phaco with PCIOL usually done by most of the surgeons, because it is cheap, requires short hospital stay, suture less surgery, less astigmatism and visual out come is satisfactory[5].

According to WHO, to achieve "Vision 2020", cataract surgery rate will have to increase in all under developed and developing countries. The cataract surgery rate (CSR), which re-presents the number of cataract extractions performed per million populations per year in a given location, is a key indicator for monitoring eye care services. To reduce visual impairment from cataract, the CSR must be greater than the incidence rate of cataract blindness[6].

In Bangladesh, greater portions of population are old age group, where cataract surgery rate is very important to improve the vision and to make the "Vision 2020" successful. Therefore, this study was carried out in older population to evaluate the visual outcome and satisfaction of the patients after cataract surgery.

MATERIALS AND METHODS

This is an observational and retrospective study, which was carried out among 150 patients, aged 50 years and above. Among them, number of male patient was 80(53%) and the female patient was 70 (47%) and they were from different professions. Data were collected from hospital records of patients admitted in Eye department for cataract surgery from 1st June 2013 to 30th July 2014 in Prime Medical College Hospital, Rangpur. Preoperative visual acuity (preop V_A), post operative visual acuity (postop V_A), direct ophthalmoscopy (pre and post operative) tests results and slit lamp examination tests results of each patient was collected from record files. Posterior chamber intra ocular lens (PCIOL) was implanted in all patients with small incision cataract surgery. Satisfaction level was evaluated by using simple questionnaire. Data were analyzed by Microsoft office Excel 2003.

RESULTS

All the data of preoperative visual acuity, post operative visual acuity and percentage of complications before and after cataract surgery are shown in the Table I.

Table I: Distribution of patients according to visual outcome before and after IOL operation. (n=150)

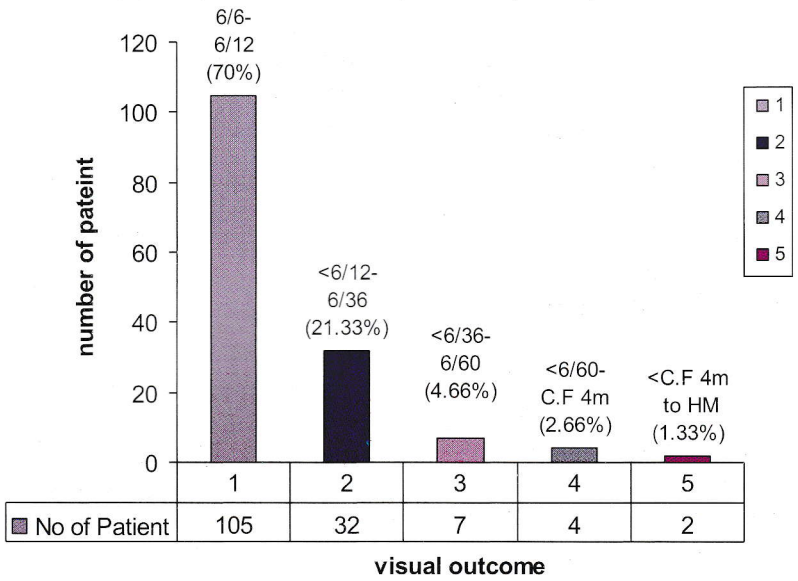
Number of patients (%)	V_A Before cataract operation	V_A After cataract operation	No of pt. with post operative complications (%)
105 (70%)	PLPR to C.F-2 m	6/6-6/12	2 (1.9%)
32 (21.33%)	PLPR to C.F- 4 m	<6/12-6/36	3 (9.3%)
7 (4.66%)	PLPR to C.F- 3 m	<6/36-6/60	1 (14.2%)
4 (2.66%)	PLPR to C.F- 3 m	<6/60-C.F 4 m	1 (25%)
2 (1.33%)	PLPR to HM	<C.F- 4 m to HM	0 (0%)

n= total number of patient; m=meter; V_A= visual acuity,
PLPR = perception of light and projection of ray
C.F= counting figure HM= hand movement.

Out of 150(100%) patients, 105 (70%) had V_A 6/6-6/12; 32 (21.33%) patients had V_A <6/12-6/36; 7 (4.66%) patients had V_A <6/36-6/60; 4(2.66%) patients had V_A <6/60-C.F 4meter and 2(1.33%) patients had V_A <C.F 4 meter to HM (Fig:1).

Post operative Complications were uveitis, secondary glaucoma, straight karatopathy, corneal edema, Hyphaema, shallow anterior chamber.

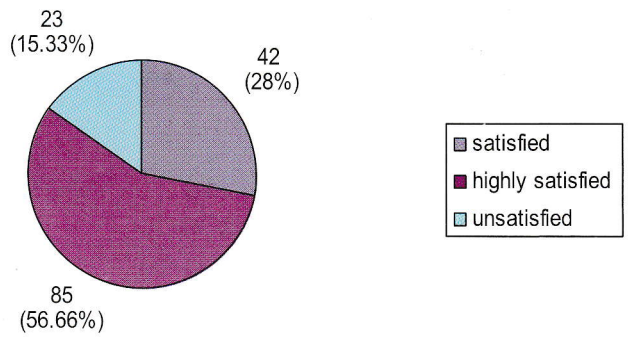
Fig1: Distribution of patients according to visual outcome after IOL operation (n=150)



n= total no of patient

Satisfaction of patients was evaluated by simple questionnaire. Out of 150 patients 85 (56.66%) patients were highly satisfied after SICS (Small Incision Cataract Surgery) with PCIOL (Posterior Chamber Intra Ocular Lens implantation); 42(28%) patients were satisfied about their visual outcome and 23(15.33%) patients were unsatisfied (Fig: 2).

Fig 2: Distribution of patient according to satisfaction level after cataract surgery. (n=150)



n= number of patient

DISCUSSION

In Bangladesh cataract is the leading cause of blindness[7]. In our study we have observed that visual acuity has improved in majority of the patient after surgery by SCIS with PCIOL and they were fully satisfied. Talukder et. al. also observed similar finding after cataract surgery by same procedure. In another study by Bourne et. al. in 2003[4] it was observed that 42% of the patient improved V_A after surgery by ICCE. Again, they have found improvement in V_A about five times more by using ECCE than ICCE. In our study we have used newer method and observed that all the patients have improved visual acuity in some extent. Among them 70% patient had improved their visual acuity highly.

In this study 56.66% patient were highly satisfied with their vision. The result is consistent with Talukder et. al. Again, we have observed that very less number of patient have failed to improve vision after surgery which may be due to macular degeneration, diabetic retinopathy, glucoma, uveitis, amblyopia, corneal opacities and phthisis etc. Bourne et. al. also demonstrated similar reasons of low vision in their study[4].

CONCLUSION

In this study we have demonstrated high satisfaction in old aged patients after cataract surgery. Majority of the patients were able to overcome the previous unsatisfactory life style. As the outcome of surgery and patients satisfaction following it is quite satisfactory, so to prevent blindness due to cataract the role of surgery remains paramount. The availability of surgical management must be increased and should be within the reach of our poor community. Government and non government organization working in this field should increasingly come forward to overcome blindness in our country.

REFERENCES

1. Ministry of health & family planning, Bangladesh. National eye care teaching module. 2013 March: p12.
2. Gilbert CE, Shah SP, Jadoon M Z, Bourne R, B Dineen B, Khan MA, Johnson GJ, and Khan MD. Pakistan National Eye Survey Study Group Poverty and blindness in Pakistan: results from the Pakistan national blindness and visual impairment survey. BMJ. 2008 Jan 5; 336(7634): 29–32.
3. Foster A, Gilbert C, Johnson G. Changing patterns in global blindness: 1988–2008.comm Eye Health. 2008 Sept; 21(67):37 - 39.
4. Bourne R R A,Dineen BP, Ali SM,Huq DMN,Johnson GJ.Outcomes of cataract surgery in Bangladesh: results from a population based nationwide survey. Br J Ophthalmol. 2003 Jul; 87(7): 813–819.
5. Samar K.B. Disease of the lens, P-250-252 4th edition, Assertion book of opthalmology -2007, Reprint -2008 publishes ceerrent book international,60, lenin Saranee, Kolkata, India.
6. Foster A .VISION 2020: THE CATARACT CHALLENGE. Community Eye Health. 2000; 13(34): 17–19.
7. Talukder MAK, Zakia S, Khanam M, Hussain AZMI. Visual outcome & satisfaction after cataract surgery in older population. 36th Annual national conference on Better sight better life. 2009 March 17-29; BCPS complex, Dhaka, Ophthalmological society of Bangladesh; 2009 March.
8. Dineen BP,Bourne RRA, Ali SM, Huq DMN, Johnson GJ.Prevalence and causes of blindness and visual impairment in Bangladeshi adults: results of the National Blindness and Low Vision Survey of Bangladesh. Br J Ophthalmol. 2003 Jul; 87(7): 820–828.

Original article

Height of the Mitral valve leaflets of Human heart – a morphological study.

Reza R[1], Ara S[2], Parveen S[3]

ABSTRACT

CONTEXT: *The heart valves are the mechanical devices that permit unidirectional flow of blood without causing obstruction or regurgitation, trauma to blood elements, thromboembolism or excessive mechanical stress in the cusps and leaflets. The complex physiology and normal asymmetrical structure of the mitral valve both under physiologic and pathologic conditions, show important individual variations, of clinical and surgical relevance and needs further investigation.* ***OBJECTIVE:*** *To provide information about the morphological changes of height of mitral valve leaflets with advancing age, considering its remarkable clinical & surgical importance.* ***METHODS:*** *This cross sectional and descriptive type of study was carried out in the Department of Anatomy, Dhaka Medical College, Dhaka from July 2010 to June 2011. A total number of 70 human hearts were collected from unclaimed dead bodies undergoing routine autopsy examination in the morgue of the Department of Forensic Medicine and Department of Anatomy, Dhaka Medical College, Dhaka. All samples were collected within 24-36 hours after death. The samples were divided into three different age groups. Group A (18-40 years), group B (41-64 years) and group C (≥65 years). All the samples were studied morphologically and data were analyzed by One-way ANOVA (PostHoc) test.* ***RESULTS:*** *The mean difference of height of anterior leaflet in between group A and B and group A and C were statistically significant ($p < 0.001$), but the mean difference between group B and C was not significant ($p>0.05$). The mean differences of height of posterior leaflet among all three age groups were statistically significant ($p < 0.001$).* ***CONCLUSION:*** *From this study we can conclude that the height of the anterior and posterior leaflets of mitral valve was found to be increased significantly with age.*

KEY WORDS: Mitral valve, leaflets height, human heart.

INTRODUCTION

Four valves control the flow of blood through the heart. Among this the mitral valve guards the inlet orifice of left ventricle[1]. The mitral valve is a unit that consists of a fibrous "ring", of two unequal cusps, two sets of papillary muscles and numerous chordae tendineae[2]. The mitral valve shows a natural asymmetry; leaflets are not equal, scallops of the posterior leaflet do not share even leaflet material, papillary muscle and chordal support are not evenly distributed over the two imaginary halves of the valve[3]. Rheumatic mitral valvular disease (MVD) is a common cause of cardiovascular morbidity and mortality in developing country like Bangladesh[4]. Any abnormality of leaflet, such as deficient leaflet tissue, excessive leaflet tissue or restricted leaflet mobility can cause acquired or congenital mitral regurgitation[5]. Therefore, thorough knowledge of the anatomy of mitral valve is of utmost importance for diagnostic interrogation and surgery.

1. * Dr. Rumana Reza
   Assistant Professor of Anatomy
   Green Life Medical College Dhaka
   E-mail: rumanaana@gmail.com.
   Cell no: 01817573667
2. Prof. Dr. Shamim Ara
   Professor & Head of Anatomy
   Dhaka Medical College, Dhaka
3. Dr. Shahnaj Pervin
   Associate Professor of Anatomy
   Popular Medical College, Dhaka

   * Corresponding author

MATERIALS AND METHODS

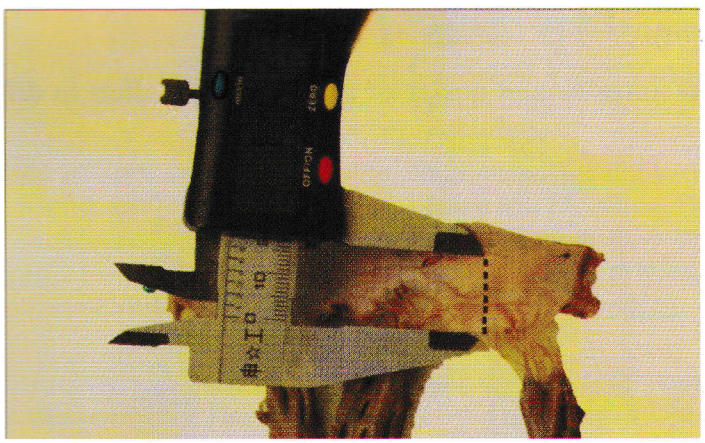
This cross sectional and descriptive type of study was carried out in the Department of Anatomy, Dhaka Medical College, Dhaka from July 2010 to June 2011. For this purpose the samples of human heart were collected from unclaimed dead bodies undergoing routine

autopsy examination in the morgue of the Department of Forensic Medicine and Department of Anatomy, Dhaka Medical College, Dhaka. The protocol of the study was approved by the Ethical Committee of the Dhaka Medical College. All the samples were collected within 24-36 hours of death after completing all legal formalities. During collection of the samples, appropriate age, sex and cause of death were noted from the morgue's record book. In the dissection room the hearts were cleaned by removing all the associated tissues. The specimens were washed thoroughly with tap water and gently squeezed to remove blood clots from the cavity of the heart and from the lumen of the blood vessels as much as possible.

The samples were then kept in a jar containing 10% formol saline solution and a tag was given with the identification number and label showing age, sex, cause of death and date of collection etc. All the collected samples were divided into 3 groups according to age [6]. 18-40 years were included in Group A, 41-64 years in Group B and age 65 years and above were included in Group C.

After opening the left ventricular cavity, the mitral annular ring was excised carefully from the ventricular myocardium. Then the posterior leaflet of mitral valve was divided at its mid region[7]. The height of each leaflet was measured at its center, from free margin to attached margin by digital slide calipers[8] (Figure: 1).

Fig- 1: height of the anterior mitral leaflet which is indicated by a black dotted line and measured by digital slide calipers.



RESULTS

In the present study all the samples were divided in to three groups according to age (Table:I)

Table: I Distribution of the samples according to age

Group	Age limit	No. of samples
Group A	18-40 years	36
Group B	41-64 years	30
Group C	≥65 years	04

In the present study the mean ± SD height of the anterior leaflet of mitral valve was 18.78 ± 1.92 mm in group A, 22.68 ± 2.96 mm in group B and 25.26 ± 2.58 mm in group C. The mean difference of height of anterior leaflet in between group A versus B and group A versus C was statistically significant ($p<0.001$), but mean difference between group B versus C was not significant ($p>0.05$). The mean ± SD height of the posterior leaflet was 11.26 ± 1.30, 13.00 ± 2.08 and 17.27 ± 0.84 mm in group A, group B and group C respectively. Mean difference of height of posterior leaflet among all three age groups were statistically significant ($p<0.001$) Comparison between different age groups done by One-way ANOVA (PostHoc) test (Table: II & Figure: 2)

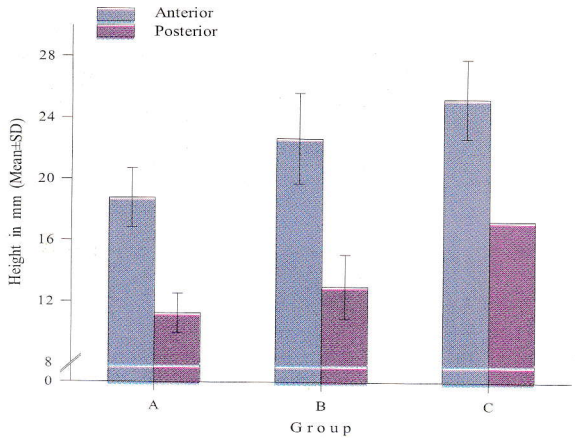
Table II: Height of the anterior and posterior mitral valve leaflets in different age groups

	Height (mm)	
Age group	**Anterior valve leaflet Mean±SD**	**Posterior valve leaflet Mean±SD**
A (n=36)	18.78±1.92 (14.89-22.89)	11.26±1.30 (8.92-13.43)
B (n=30)	22.68±2.96 (17.86-28.19)	13.00±2.08 (10.89-17.98)
C (n=4)	25.26±2.58 (21.54-27.31)	17.27±0.84 (16.12-18.12)
Statistical analysis		
	P value	*P value*
A vs B	<0.001***	<0.001***
A vs C	<0.001***	<0.001***
B vs C	>0.05ns	<0.001***

Figures in parentheses indicate ranges. Comparison between age groups done by One-way ANOVA (PostHoc), ns = not significant, *** = significant

Group A: Age 18-40 years
Group B: Age 41-64 years
Group C: Age 65 years and above

Figure 2: Height of the anterior and posterior mitral valve leaflets in different age groups



Group A: Age 18-40 years
Group B: Age 41-64 years
Group C: Age 65 years and above

DISCUSSION

The mean height of the anterior mitral leaflet measured by Ranganathan et al., Sakai et al., Rusted, Schcifley & Edwards, Cheichi & Lees, and Carpentier was 2.4 cm, 23.4 ± 2.9 mm, 2.3 cm, 2.1 cm, and 23 ± 0.9 mm respectively[8-12] and all these values were similar to the present study in which the mean was 18.78 ± 1.92 mm in group A, 22.68 ± 2.96 mm in group B and 25.26 ± 2.58 mm in group C. Again, Morris, Walmsley and Plesis and Marchand also observed that the average height was 27mm, 15-18 mm and 27mm[13,14,15] and the findings were similar to the present study. The mean height measured by Kibria and Begum was 2.23 ± 0.35 cm and 2.07 ± 0.25 cm respectively[16,17] and their results were similar

to the present study.

The mean height of the posterior mitral leaflet measured by Ranganathan et al., Sakai et al., Rusted, Scheifley and Edwards, Cheichi and Lees, and Carpentier was 1.4 cm, 13.8 ± 2.9 mm, 1.3 cm, 1.4 cm and 14 ± 0.9 mm respectively[8-12] and all these were similar to the present study which revealed that the mean height was 11.26 ± 1.30, 13.00 ± 2.08 and 17.27 ± 0.84 mm in group A, group B and group C respectively. Morris, Walmsley and Plesis and Marchand also observed the mean height 13mm, 10-12 mm and 1.3 cm respectively[13,14,15] and their findings also were similar to the present study. The mean measured by Kibria and Begum was 1.29 ± 0.23 cm and 1.31 ± 0.21 cm respectively[16,17] and their results were similar to the present study.

CONCLUSION

The height of the anterior and posterior leaflets of mitral valve was found to be increased significantly with age irrespective of race and geographical distribution.

REFERENCES

1. Creager JG. Human Anatomy and Physiology. Chapter 17 Cardiovascular system: The heart. 1st ed. Belmont California: Wadsworth Publishing Company; 1983. p 441-462.
2. Spuy JCVD. The functional and clinical anatomy of the mitral valve. Br Heart J. 1958; 20(4): p471-78.
3. Muresian H, Diena M, Cerin G and Filipoiu F. The mitral valve: New insights into the clinical anatomy. Medica- a journal of clinical medicine 2006; 1(4): p80-87.
4. Islam AKM M, Azhar MA, Islam MF, Haque MZ and Yeasmin L. A clinical study on the pattern of mitral valvular disease in a peripheral tertiary hospital in Bangladesh. Cardiovasc J. 2010; 3(1): p11-21.
5. Perloff JK and Roberts WC. The mitral apparatus: Functional anatomy of mitral regurgitation. Circulation 1972; 46: p227-239.
6. Skwarek M, Hreczecha J, Dudziak M et al. Morphometric features of the right atrio-ventricular orifice in adult human hearts. Folia Morphol 2008; 67(1): p53-57.
7. Lam JHC, Ranganathan N, Wigle ED and Silver MD. Morphology of the human mitral valve: I. Chordae tendineae: A new classification. Circulation 1970; 41: p449-458.
8. Ranganathan N, Lam JHC, Wigle ED and Silver MD. Morphology of the human mitral valve: II. The valve leaflets. Circulation 1970; 41: p459-467.
9. Sakai T, Okita Y and Ueda Y et al. Distance between mitral annulus and papillary muscles: Anatomic study in normal human hearts. J Thorac Cardiovasc Surg 1999; 118: p636-641.
10. Rusted IE, Scheifley CH and Edwards JE. Studies of the mitral valve. I. Anatomic features of the normal mitral valve and associated structures. Circulation 1952; 6: p825-831.
11. Cheichi MA, Lees WM and Thompson R. Functional anatomy of the normal mitral valve. J Thorac Surg 1956; 32: 378.
12. Carpentier A, Guerinon J, Deloche A, Fabiani JN, Relland J. Pathology of the mitral valve. In: Lalmanson D, editor. The mitral valve. London: Edward Arnold; 1976. p65-77.
13. Morris E. W. T. Some features of the mitral valve. Thorax 1960; 15: p 70-73.
14. Walmsley R. Anatomy of human mitral valve in adult cadaver and comparative anatomy of the valve. British Heart Journal 1978; 40: p351-366.
15. Plesis LA and Marchand P. The anatomy of the mitral valve & its associated structures. Thorax 1964; 19: p221-227.
16. Kibria GM. Study of the mitral valve in the postmortem heart of adult Bangladeshi males and comparison with stenotic valve[M Phil thesis].[Dhaka(Bangladesh)]: Bangabandhu Sheikh Mujib Medical University; 1999: p2-75.
17. Begum J. An anatomical study of atrioventricular valves, muscular part of interventricular septum and papillary muscle of the heart among the adult Bangladeshi people. Dhaka: Institute of Post-Graduate Medicine and Research. Dhaka, Bangladesh. 1996; p15-156.

Original article

Pattern of Lymphadenopathy on Fine Needle Aspiration Cytology in Northern Zone of Bangladesh.

Akanda Md. M R[1], Shamsuzzaman Md.[2], Habib Md. A[3], Khanom M J A[4]

ABSTRACT

BACKGROUND: *Lymphadenopathy results from a variety of different diseases like inflammation, primary or secondary tumor of lymph node. Fine needle aspiration cytology (FNAC) is widely accepted as the accurate, sensitive, specific and cost effective procedure in the diagnosis of cause of lymphadenopathy.* ***OBJECTIVE:*** *The purpose of the study was to know the overall prevalence of various diseases causing lymphadenopathy.* ***METHODS:*** *We performed 100 FNAC of lymph node in the Department of Pathology, Rangpur Medical College, Rangpur from October 2009 to September 2011. Male to female ratio of the patients was 1.2:1.* ***RESULTS:*** *The age range of the patients was from 5 to 65 years, the majority being in the 20-39 age. The majority of the aspirations were from cervical lymph node (72%) followed by axillary lymph nodes (18%). Out of 100 cases, 53% tuberculous lymphadenitis, 24% reactive hyperplasia, 18% metastatic carcinoma, (4%) non-hodgkin's lymphoma and (1%) Hodgkin's lymphoma. Metastatic carcinoma was more common in male (83.3%) and in the age group more than 45 years.* ***CONCLUSION:*** *Tuberculosis and metastatic carcinoma are the most common causes of cervical lymphadenopathy.*

KEY WORDS: FNAC, Disease pattern, Lymphadenopathy.

INTRODUCTION

Lymphadenopathy is a common problem, which is usually meeting the clinicians[1]. It may results from a variety of different diseases like inflammation, metastatic malignancy or malignant lymphoma[2], and its management is based upon a good clinical diagnosis, and an accurate histopathology diagnosis of an excised lymph node tissue. Several methods are used to obtain lymph node biopsy, Fine-needle aspiration cytology (FNAC) still simple, rapid, inexpensive technique and is reliable for the diagnosis of lymphadenopathy [3,4,5] and other tissues [6,7] FNAC also avoids the physical and psychological trauma occasionally encountered after biopsy, general anesthesia, a surgical operation and hospitalization. The knowledge of the pattern of lymphadenopathy in a given geographical region is essential for making a confident diagnosis or suspecting a disease. Tuberculosis is the commonest cause of lymphadenopathy in developing countries like Bangladesh and should be considered in every case of granulomatous lymphadenopathy unless proved otherwise. The present study was carried out to know the overall prevalence of various diseases responsible for lymphadenopathy.

1. * Md. Mostafizur Rahman Akanda
Assistant Professor
Department of Pathology
Rangpur Medical College.
2. Professor Dr. Md. Shamsuzzaman
Professor & Head
Department of Pathology
Rangpur Medical College.
3. Md. Ahsanul habib.
Resident Surgeon
Department of ENT
Rangpur Medical College & Hospital
4. Most Jahan Aforza Khanom
Radiotherapist
Department of Radiotherapy
Rangpur Medical College &Hospital

*Corresponding author

MATERIALS AND METHODS

Present study on 100 patient of lymphadenopathy was conducted in the Department of Pathology, Rangpur Medical College, Rangpur from October, 2009 to September, 2011. FNAC of the enlarged lymph

nodes was performed after taking informed written consent of the patient following a brief history and physical examination. The cervical group of lymph nodes included the parotid, submandibular, mandibular and jugular digastrics glands. The aspirated materials were placed on the glass slides and smears were immediately immersed in 95% ethanol. In all the cases alcohol fixed smears were stained with Haematoxyline & Eosin stains and examined under microscope. No complications were recorded during the study with FNAC.

RESULTS

Characteristics of the patient are shown in Table I. Among the patient majority was in the 20-39 age group (57%). The male to female ratio was 1.2:1. The majority of the aspirations were taken from cervical lymph nodes (72%) followed by axillary lymph nodes (18%) (Table I).

Table I: Characteristics of patient with lymphadenopathy.

Variables	Cases
Age(Years)	
6-19	7
20-39	57
40-59	26
>60	10
Sex	
Male	55
Female	45
Lymph node location	
Cervical	72
Axillary	17
Supraclavicular	8
Inguinal	2

Out of 100 cases, 53 were having tuberculous lesions and 24 were having reactive hyperplasia followed by metastatic carcinoma, non-Hodgkin's lymphoma and Hodgkin's lymphoma. Tuberculosis was more common among the female, while reactive hyperplasia, secondary carcinoma and lymphoma (100%) were more common among males (Table II).

Table II: Distribution of various lymphadenopathies among Male & Female.

Cause	Male	Female	Total
Tuberculous lymphadenitis	23(43.4%)	30 (56.6%)	53
Reactive hyperplasia	14 (58%)	10 (42%)	24
Metastatic carcinoma	15 (83.3%)	03 (16.7%)	18
Hodgkin's lymphoma	01 (100%)	00	01
Non-Hodgkin's lymphoma	04 (100%)	00	04

In the present study, the cervical lymph nodes were involved most often in all types of lymphadenopathy particularly Hodgkin's lymphoma, which showed 100% involvement in cervical group of lymph nodes (Table III).

Table III: Involvement of Lymph node groups in various types of lymphadenopathy.

Sites/ Lymph node groups	Tuberculous lymphadenitis	Reactive hyperplasia	Metastatic Carcinoma	Hodgkin's lymphoma	Non-Hodgkin's lymphoma	Total
Cervical LN	40 (75.5)	19 (79)	10(55.5)	01(100)	02(50)	72
Axillary LN	11(20.5)	03 (12.6)	02 (11)	00	02(50)	18
Supraclavicular LN	02(4.0)	01(4.2)	05(28)	00	00	08
Inguinal LN	00	01(4.2)	01(5.5)	00	00	02
Total	53	24	18	01	04	100

The figure in the parenthesis indicates percentage.

DISCUSSION

Lymphadenopathy is considered as one of the most common clinical problem affecting different age groups and involves Lymph node groups in any site of the body. The most frequent cause of peripheral lymphadenopathy is reaction to some symptomatic or asymptomatic inflammatory process[8]. Fine needle aspiration cytology (FNAC) is widely accepted as the accurate, sensitive, specific and cost-effective procedure in the diagnosis of lymphadenopathy. FNAC is a simple and rapid diagnostic technique for evaluation of lymphadenopathy. In this study the most common diagnosis was Tuberculous lymphadenitis. This findings is in consistent with the findings of other researches of the developing countries, like Bangladesh, India and Nepal, where the tuberculous lymphadenitis is one of the most common type of lymphadenopathy with female preponderance[9,10,12,13]. In our study, we also had observed the most common sites involved are cervical lymph nodes followed by axillary lymph nodes. Similar observations have been made in other studies[11,14,15,16,17].

Reactive hyperplasia was the second largest group in the present study with male predominance. The result of our study is in accordance with studies by Gupta et al. and lochan et al.[14,18]. Again, Metastatic carcinoma was more common among male and cervical lymph nodes are the most common site of involvement. Similar findings were observed by khan et al.[19].

CONCLUSION

In conclusion, the present study strongly indicated the fact that the tuberculosis and metastatic carcinoma are the most common causes of cervical lymphadenopathy and FNAC of lymph nodes is an excellent first line method for investigating the nature of the lesions.

REFERENCES

1. Lopes Cardozo P. The cytologic diagnosis of lymph node punctures. Acta cytol. 1964; 8:194-205.
2. Mansoor I, Abdul-Aziz S. Cervical lymph node biopsy: clinical and histological Significance. Saudi Med J 2002; 23: 1291-1292.
3. Lever JV, Trott PA, Webb AJ. Fine needle aspiration cytology. J Clin Pathol 1984;38: 1-11.
4. Ramzy I. Clinical cytopathology and aspiration biopsy. Norwalk (CT): Appleton and Lange; 1990. p. 313-328.
5. Martin DA, James OA, Allen SL, John EN. Clinical Oncology. 2nd ed. London (UK): Churchill Livingstone Inc; 2000. P 2620-2629.
6. Mulhim AS, Mohamed IS, Ali SE. The validity of fine needle aspiration cytology. In the diagnosis of malignant thyroid swelling. J Ir Coll Physicians Surg 2002; 31:145-147.
7. Mansour I, Jamal AA. Role of fine needle aspiration in diagnosis of breast lesions.Saudi Med J 2002; 23: 915-920.
8. Orell SR, Sterrett GF, Walters M, Whitaker D. Manual and Atlas of Fine Needle Aspiration Cytology 3rd ed. London (UK): Churchill Livingstone; 1999. p. 2-8.
9. Talukder et al. Evaluation of fine needle aspiration cytology (FNAC) of lymph node in Mymenshing. Mymenshing Med J 2003 Jan; 12(1): 33-5.
10. Prasad RR, Narashimhan R, Sankran V, Veliath AJ. Fine needle aspiration cytology in the diagnosis 0f superficial lymphadenopathy: an analysis of 2418 cases. Diagno Cytol 1993; 15: 382-86.
11. Paul PC, Goswami BK, Chakrabarty S, Giri A, Pramanik R. Fine needle aspiration cytology of lymph nodes- An institutional study of 1448 cases over a five year period. J Cytology 2004; 21: 187-90.
12. Gupta AK, Nayar M, Chandra M. Critical appraisal of fine needle aspiration cytology in tuberculosis. Acta Cytol 1992; 36: 391-94.
13. Bhaskran CS, Kumar GH, Sreenivas M, Rajni K, Rao G, Aruna CA. Fine needle aspiration cytology review of 1731 cases. Ind J Pathol Microbiol 1990; 33: 387-97.
14. Gupta AK, Nayar M, Chandra M. Reliability and limitations of fine needle aspiration cytology of lymphadenopathis. Acta Cytol 1991; 35: 777-82.
15. Patra SP, Bhatacharya N, Mangal S. FNAC, Imprint Cytology and Histopathology for Diagnosing diseases of lymph node. J Cytology 2003; 20; 124-28.
16. Das DK, Tuberculous lymphadenitis: correlation of cellular components and necrosis in Lymph node aspirates with AFB positivity and bacillary count. Ind J Pathol Microbiol 1990; 33: 1-10.
17. Rajwanshi A, Bhambani S, Dilip DK. Fine needle aspiration cytology diagnosis of Tuberculosis. Diagn Cytol 1987; 3: 13-16.
18. Lochan KK, Goyal S, Garg R. Lymphadenopathy in children-role of FNAC. J Cytology 2002; 19: 183-86.
19. Khan et al. Study on the role of Fine Needle Aspiration Cytology in Cervical Lumphadenopathy. World Appl.Sci. J. 2011; 12(11): 1951-1954.

Original article

A study of clinical profile of stroke patients from Prime Medical College Hospital, Rangpur

Islam Md.N[1], Rizwan A.S.M.[2], Islam Md.S[3], Paul D[4]

ABSTRACT

INTRODUCTION: *Being the third most common cause of death and an important cause of morbidity, stroke has gained attention of researchers worldwide. For the past few decades, in concordance with the global trend, stroke incidence in our country has risen alarmingly.* ***OBJECTIVE:*** *The objective of the current work was to study patient profile, clinical presentation and neurological type of stroke in patients admitted in Prime Medical College Hospital.* ***METHOD:*** *This was a retrospective study using information of patients admitted with and managed for stroke in Medicine ward from July, 2014 to June, 2015.* ***RESULT:*** *Most of the stroke patients were in the age group of 51-70 years. Commonest type of stroke was ischemic (55.6%), Proportion of haemorrhagic stroke was greater (37%) in the current study in comparison to other studies, overall male were the predominant sufferer (63.5%) and weakness was the commonest presentation.* ***CONCLUSION:*** *More research on stroke should be carried out to improve patient care and clinical outcome.*

KEY WORDS: Stroke, haemorrhagic stroke.

INTRODUCTION

With the advancement of medical science, longevity of human race has increased substantially. According to Bangladesh Bureau of statistics 2015 report, Current life expectancy of Bangladeshi people at birth is 70.4 years. The major difference in health concerns of past and present is that, we are now overwhelmed with the rising number of people suffering from so called "Non communicable disease (NCD)". Among all other NCD's stroke is a major burden globally. Stroke is defined by WHO as rapidly developed clinical signs of focal disturbance of cerebral function lasting for more than 24 hours or leading to death without any apparent cause other than vascular origin[1]. One study revealed that, stroke is the third leading cause of death in adult Bangladeshi[2]. The mortality rate of stroke has increased from 6 % (in 2006) to 8·57%, (in 2011) and the age-adjusted mortality rate was found 108·31 per 100 000 people (in 2011)[3].

MATERIALS AND METHODS

This is a retrospective study on 151 patients with stroke who were admitted and managed in the department of Medicine during the tenure of July, 2014 to June, 2015. Information was collected from medical record keeping section of Department of Medicine. All patients with stroke who were more than 18 years were included. Patients who were below 18 years, without Computed tomography (CT) confirmation of stroke or had epidural or sub-dural haemorrhage were excluded from the study. Necessary data were extracted and analyzed with IBM SPSS 20.0 software.

1. * Professor Dr. Noor Islam
Professor and Head of the Department of Medicine,
Prime Medical College and Hospital, Rangpur
2. Dr. A.S.M. Rizwan
Registrar
Department of Medicine
Prime Medical College and Hospital, Rangpur
3. Dr. Md. Sadikul Islam
Assistant Registrar
Department of Medicine
Prime Medical College and Hospital, Rangpur
4. Dr. Debdash Paul
Assistant Registrar
Department of Medicine
Prime Medical College and Hospital, Rangpur

RESULTS

Most stroke patients were in the age group of 51-70 years (Table I and Figure 1).

Table I: Age distribution of patients (n= 151)

Age (Years)	Ischemic stroke	Haemorrhagic stroke	SAH
21-30	1(0.66)*	1(0.66)	1(0.66)
31-40	10(6.62)	2(1.32)	2(1.32)
41-50	9(5.9)	13(8.6)	1(0.66)
51-60	23(15.23)	20(13.24)	3(1.9)
61-70	23(15.23)	13(8.6)	2(1.32)
>70	18(11.9)	7(4.6)	2(1.32)

The figure in the parenthesis indicates percentage. SAH=sub-aracnoid haemorrhage

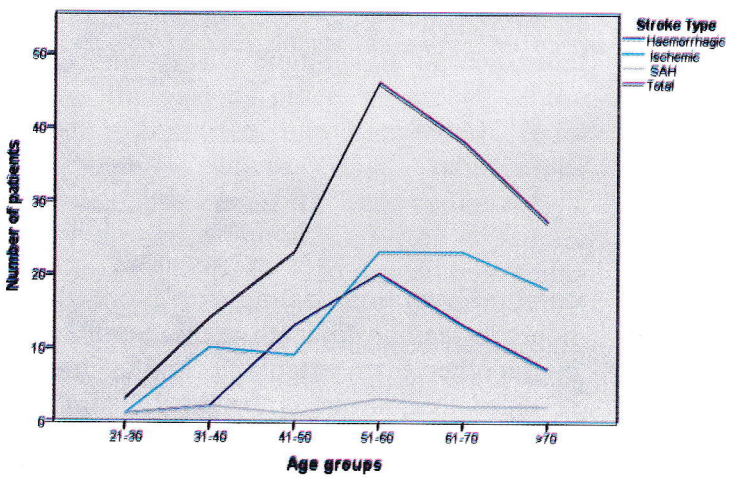


Figure 1: Age distribution of in different stroke patients

The mean age (±SD) for ischemic stroke was highest (61.57±14.4) and it was lowest in sub-archnoid haemorrhage (SAH) (48.9±21.02). Mean age for haemorrhagic stroke was in between these two (58.34±12.2).The differences of these mean age were statistically significant (P<0.05). (Table II).

Table II: Mean Age in different stroke

Types	Mean age	*P value*
Ischemic	61.57±14.4	<0.05
Haemorrhagic	58.34±12.2	<0.05
SAH	48.9±21.02	<0.05

SAH=sub-aracnoid haemorrhage

Ischemic stroke was the commonest type found in our study (55.6%) while SAH cases were least in number (7.28%) and haemorrhagic stroke cases were in between these two (37%). Among all the types of stroke, male preponderance was observed (male 63.5% and female 36.4%, M:F of 1.74:1), although in case of SAH patients of both sex were almost equally affected (Male 4% and Female 3.3%). Male patients were significantly (P<0.05) more affected by ischemic and haemorrhagic stroke than female but this difference was not statistically significant (P>0.05) in SAH patients (Table III and Figure 2).

Table III: Gender distribution of stroke patient (n= 151)

Type of stroke	Male (%)	Female (%)	Total (%)	*P* Value
Ischemic	52(34.4)*	32(21.2)	84(55.6)	<0.005
Haemorrhagic	38(25.1)	18(12)	56(37)	<0.05
SAH	6(4)	5(3.3)	11(7.28)	0.9
Total	96(63.5)	55(36.4)	151	

*Figures in parenthesis indicates percentage

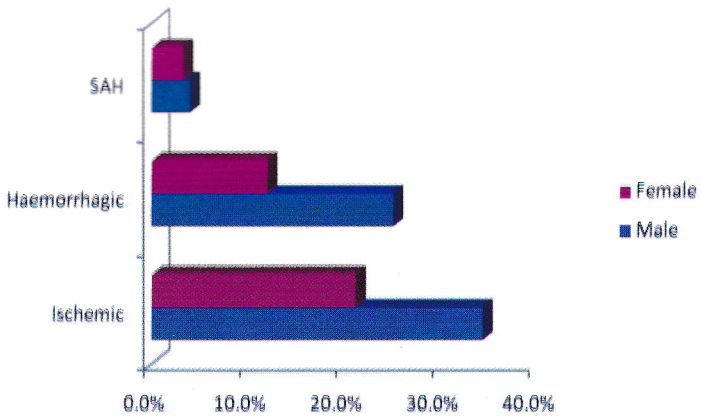


Figure 2: proportion of stroke in male and female

The leading presentation in ischemic stroke was weakness (66.6%) followed by altered level of consciousness (38%) and dysarthria (35.7%). Weakness was the commonest presentation in haemorrhagic stroke (73.2%) followed by vomiting(42.8%). In SAH, altered level of consciousness was the dominant symptom (54.5%) followed by headache, vomiting and weakness with almost same frequency (36.3%) (Table IV).

Table IV: Clinical presentation of stroke (n= 151)

Presenting complaints	Ischemic stroke (%)	Haemorrhagic stroke (%)	SAH (%)
Weakness	56(66.6)*	41(73.2)	4(36.3)
Altered consciousness	32(38)	20(35.7)	6(54.5)
Dysarthria	30(35.7)	16(28.5)	1(9)
Vomiting	17(20.2)	24(42.8)	4(36.3)
Headache	1(1.2)	1(1.8)	4(36.3)
convulsion	1(1.2)	1(1.8)	0(0)

*Figures in parenthesis indicates percentage. SAH=sub-aracnoid haemorrhage

The number of total patients admitted in the Department of Medicine during the study period was 3,069. Out of this, 151 (4.92%) patients were clinically diagnosed and confirmed by CT scan as stroke (Figure 3).

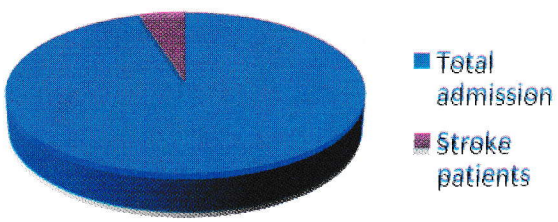


Figure 3: Proportion of stroke patients in Medicine Department in a year

Mean duration of hospital stay was highest among patients with SAH (6.7 d) that was close to the ischemic group (6 d) and in case of haemorrhagic stroke it was a bit shorter (4.3 d) (Table V and Figure 4).

Table V: Mean duration of stay at hospital (n= 151)

Type of stroke	Days
Ischemic	6
Haemorrhagic	4.3
SAH	6.7

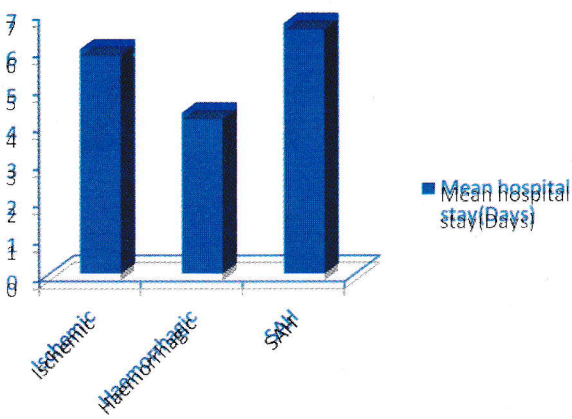


Figure 4: Days of hospital stay in different stroke

DISCUSSION

According to an estimate of World Health Organization (WHO), 86% of all stroke related death occurs in developing countries[4]. In another study it was shown that, in south East Asian countries stroke occurs on an average 10 years earlier than the rest of the world5. Again, cardio-embolic stroke are less frequent in Asian countries than the Western side[6,7,8].

In the current study, we have found that male patients are affected by stroke more (63.5%) than female (36.4%) with a M:F of 1.74:1. This finding was similar to the finding of a study done in Faridpur medical college Hospital9 but differs from a study done by Alamgir et. al.[10] and several studies done in Pakistan as they showed female preponderance[11,12,13]. The male preponderance may be due to the presence of more risk factors for stroke like smoking in male than female. The current study showed that, male were significantly more affected than female by ischemic and haemorrhagic stroke but this difference was statistically insignificant in SAH. In our study, most of the stroke cases were ischemic (55.6%). Similar results were found by previous studies done on stroke in Bangladesh[14]. Although number of haemorrhagic stroke was lower (37%) than ischemic stroke (55.6%) in our study, but this proportion of haemorrhagic stroke was higher than haemorrhagic stroke in most of the Bangladeshi studies[9,14]. This difference can be explained by the less devastating clinical picture of ischemic stroke that might have lead to less hospital admissions. The current study shows that, most vulnerable age group was 51-70 years, which was similar to the finding of studies of Dhaka and Faridpur Medical College Hospita[19,14]. Weakness was the dominant presenting feature among ischemic and haemorrhagic stroke patients, whereas, altered level of consciuosness was the main presenting feature in SAH (54.5%). Altered level of consciuosness and headache were found in higher proportion in patients with SAH than the other types.

In our study we observed that, in proportion to the total admitted patients in the Department of Medicine, stroke covered a substantial number (4.92%). Our result is similar to a study done in Nigeria by Desalu et. al.[15] where they have reported 4.5% stroke out of total Medicine admission. In contrast, a study done in Dhaka Medical College Hospital (DMCH) showed higher proportion (14%) of stroke admission[16] which may be due to regional variation.

Mean duration of hospital stay was highest among patients with SAH (6.7 days) followed by Ischemic (6 days) and haemorrhagic (4.3 days). Regarding ischemic stroke, our result was compatible to that of a study done in USA[17] where they have reported mean hospital stay of 6.5 days. The reason behind the short hospital stay of stroke patients in our country may be due to the lack of awareness as well as non-compliance of patients to continue in-hospital treatment. For the shorter stay of haemorrhagic patients in our study, referral of patients to other specialized centers for intervention might have played a role.

CONCLUSION

Once happened, stroke has a great toll on quality of life and major economic impact. Thus primary preventive strategy remains the best possible option to overcome the situation. Risk factor identification and control is of utmost importance. More research should be done on stroke in Bangladesh targeting primary prevention strategy and comprehensive stroke unit providing rehabilitation facility should be made available in tertiary care hospitals with a plan to extend the facility to District level hospitals.

REFERNCES

1. Aho K. Harmsen P, Hatano S. Cerebrovascular disease in the community. Results of WHO collaborative study. Bull WHO. 1980; 5: 113-30.
2. Haque A, Mannan MA. Disease spectrum of neurology outpatient department,IPGMR, Dhaka,during 1985.Bangladesh Neurosci.1986;2: 5-8.
3. Islam MN, Moniruzzaman M, Khalil MI, Basri R, Alam MK, Loo KW et al. Burden of stroke in Bangladesh. International Journal of Stroke. 2013; 8(3): 211-3.
4. Feigin, V. L., Lawes, C. M., Bennett, D. A., Barker-Collo, S. L. & Parag, V. Worldwide stroke incidence and early case fatality reported in 56 population-based studies: a systematic review. Lancet Neurol. 2009; 8: 355–369.
5. Hashmi, M., Khan, M. & Wasay, M. Growing burden of stroke in Pakistan: a review of progress and limitations. Int. J. Stroke. 2013; 8: 575–581.
6. Kaul, S. et al. Subtypes of ischemic stroke in a metropolitan city of South India (one year data from a hospital based stroke registry). Neurol. India. 2002; 50: S8–S14.
7. Syed, N. A. et al. Ischemic stroke subtypes in Pakistan: the Aga Khan University Stroke Data Bank. J. Pak. Med Assoc. 2003; 53: 584–588.
8. Aquil, N., Begum, I., Ahmed, A., Vohra, E. A. & Soomro, B. A. Risk factors in various subtypes of ischemic stroke according to TOAST criteria. J. Coll. Physicians Surg. Pak. 2011; 21:280–283.
9. AM Hossain, NU Ahmed, M Rahman, MR Islam, G Sadhya, K Fatema. Analysis of Sociodemographic and Clinical Factors Associated with Hospitalized Stroke Patients of Bangladesh. Faridpur Med. Coll. J. 2011;6(1):19-23.
10. Alamgir SM, Mannan MA. Cerebrovascular disease: A report of 53 cases. Bangladesh Med Res Coun Bull.1995;1:45-50.
11. Hashmi, M., Khan, M. & Wasay, M. Growing burden of stroke in Pakistan: a review of progress and limitations. Int. J. Stroke. 2013; 8: 575–581.
12. Farooq, M. U., Majid, A., Reeves, M. J. & Birbeck, G. L. The epidemiology of stroke in Pakistan: past, present, and future. Int. J. Stroke.2009; 4: 381–389.

13. Kamal, A. K. et al. The burden of stroke and transient ischemic attack in Pakistan: a community-based prevalence study. BMC Neurol.2009. 9: 58.

14. Siddique MAN, Nur Z, Mahbub MS, Alam MB and Miah MT. CLINICAL PRESENTATION AND EPIDEMIOLOGY OF STROKE –A STUDY OF 100 CASES. J MEDICINE 2009; 10: 86-89.

15. Desalu OO, Wahab KW, Fawale B et al. A review of stroke admissions at a tertiary hospital in rural Southwestern Nigeria. Ann Afr Med. 2011 Apr-Jun;10(2):80-5.

16. Miah MT, Al-Amin M, Khan MAI et al. Feeding practice in acute stroke patients in a tertiary care hospital. Bangladesh Med Res Counc Bull. 2010; 36: 78 -81.

17. Freeman WD, Gronseth G, Eidelman BH. Invited article: Is it time for neurohospitalists? Neurology. 2008; 70(15):1282-1288.

Case Report

Apert Syndrome

Rahman Md. F[1], Begum K A[2]

ABSTRACT

Apert syndrome is a rare congenital disorder, which is a part of acrocephalosyndactyly syndrome. It is characterized by craniosynostosis and syndactyly of hands and feet. It is a birth disorder with autosomal dominant linkage. However, cases may also occur without genetic linkage. A case of Apert Syndrome admitted in Paediatrics Department of Prime Medical College Hospital, presented with brachycephaly, proptosis, syndactyly of hands and feet with choanal atresia. The patient was given conservative management and discharged on advice for follow up with intention for possible surgical correction in future.

KEY WORDS: Apert syndrome, Brachychephaly, syndactyly, choanal atresia.

INTRODUCTION

Apert Syndrome is a rare congenital disorder characterized by craniosynostosis, midface hypoplasia, and syndactyly of hands and feet[1,2,3,4].This Syndrome is a form of acrocephalosyndactyly, which is named after French Physician, Eugéne Apert in 1906[1,4,5]. The syndrome is usually sporadic but sometimes autosomal dominant[6]. "Acro" in Greek means "Peak" referring to the peaked head and "Cephalo" is another Greek word meaning head. 'Syndactyly' refers to webbing of fingers and toes. Separation of the digits occurs during development as a result of selective cell death or apoptosis of the hands and feet. However, in case of acrocephalosyndactyly this selective cell death does not occur and skin and rarely bone, between the fingers and toes fuses. Apert syndrome occurs in approximately 1 per 160,000 to 1 per 200,000 live births[7]. Prevalence is estimated at 1 in 65,000 (approximately 15.5 in 1,000,000) live births [8,9,10].

We are reporting a case of Apert syndrome with choanal atresia. It is a rarely observed clinical entity. Due to its rarity we have intended to present the case. Early recognition and treatment of the condition effectively can minimize the morbidity and mortality of the neonates and infants.

CASE REPORT

Sathi, 42 days old female baby of non consanguineous parents was admitted in Paediatrics Department of Prime Medical College Hospital on 29 July 2012 with the complaints of respiratory distress since birth. She was a full term baby born by normal vaginal delivery (NVD) at home and there was H/O delayed crying. Mother had regular antenatal check up and there was no H/O any maternal illness during pregnancy period.

On the day of admission baby was dyspnic with fast breathing and her respiratory rate was 65 breaths/min. She was having dysmorphic facies i.e. depressed nasal bridge. Her mouth was open due to choanal atresia (Fig: I). She was also having flat faces with high prominent forehead with a flat posterior skull, Syndactyle of both hands and feet (Fig: II). Her weight was 3.5 kg. She was admitted in our neonatal

1. * Dr.Md.Ferdous Rahman
Associate Professor
Department of Paediatrics
Prime medical college, Rangpur
Email:drferdous33@yahoo.com
Cell-01712564761

2. Dr.Khandker Anjumanara Begum
Associate Professor
Department of Psychiatry
Prime medical college, Rangpur

*For Correspondence

intensive care unit and stayed there for 8 days. During hospitalization she was given conservative management. After improvement of the general condition, she was discharged with advice for follow up for assessment of surgical management of craniosynostosis.

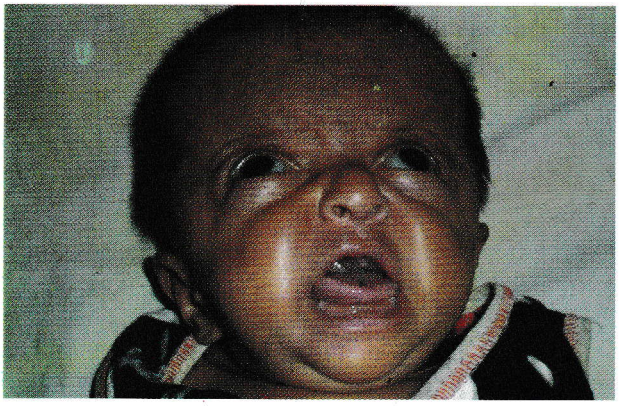


Fig I: Front view of the patient showing open mouth due to choanal atresia and depressed nasal bridge.

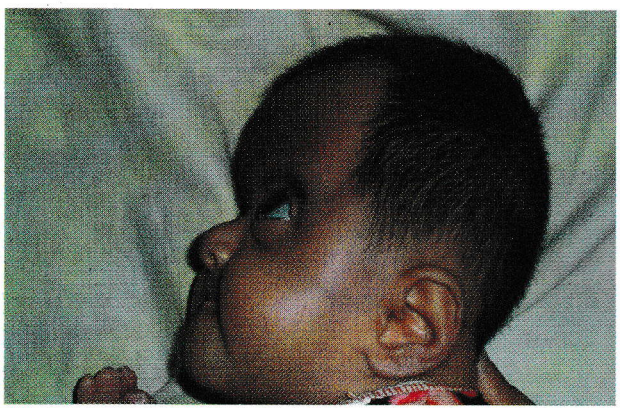


Fig II: Patient having flat faces with high prominent forehead.

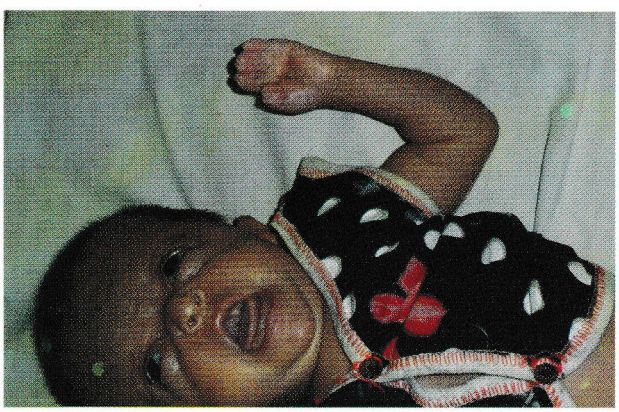


Fig III: Patient having Syndactyle of both hands and feet.

DISCUSSION

Apert syndrome is one of the 5 craniosynostosis syndromes. It has many features in common with Crouzon syndrome, which is another type of craniosynostosis syndrome[3]. Syndactyly of hands and feet occur in Apert syndrome, whereas, Crouzon syndrome is characterized by craniosynostosis but normal limbs[11]. Syndactyly or webbing usually involves 2nd, 3rd and 4th fingers in some cases that may be joined to the thumb and also the 5th finger. Again,. Apert syndrome is associated with premature fusion of multiple sutures including coronal, sagital, squamoral and lamboid sutures. The face appears asymmetric and the eyes are less proptotic then Crouzon syndrome[4]. In this case similar type of syndactyly or webbing of the fingers has been observed. Again, eyes in this case were less proptotic. These features favor the diagnosis of Apert's syndrome over Crouzon syndrome in the current case.

Apert syndrome may be associated with hydrocephalus, increased ICP, papillidema, optic atrophy, respiratory problem secondary to deviated nasal septum or choanal atresia and disorder of speech and deafness[12].

Treatment is multidisciplinary approach including craniofacial surgeon, neurosurgeon, neurologist, ENT (ear, nose, and throat), audiologist, pediatrician, speech pathologist, oral surgeon, psychologist, and an orthodontist [2,12,13,14]. Surgical care involves early release of the coronal suture and allow proper brain growth and reduce dysmorphic and unwanted skull growth changes[2,15]. Chang J, Danton T and Hertz V delineated that digital separation of an Apert hand should begin at 9 months of age and should be completed by 2 to 4 years of age. They had also supported for early bilateral surgery on border digits followed by unilateral separation of middle syndactyly combined with thumb and digit osteotomies and bone grafts[16].

CONCLUSION

Although Apert syndrome is not so common in our country, it is of great concern to the family and also obstetrician and pediatrician. It is important to mention that the outcome is usually good after surgical correction with relatively low morbidity and mortality.

and also obstetrician and pediatrician. It is important to mention that the outcome is usually good after surgical correction with relatively low morbidity and mortality.

REFERENCES

1. Paravatty RP, Ahsan A, Sebastian BT, Pai KM, Dayal PK. Apert syndrome: A case report with discussion of craniofacial features. Quintessence Int. 1999;30:423–6.
2. Amar T, Krishna V, Sona K. Apert syndrome: A rare presentation. J Indian Acad Clin Med. 2007;8:245–6.
3. Martelli H, Jr, Paranaíba LM, de Miranda RT, Orsi J, Jr, Coletta RD. Apert syndrome: Report of a case with emphasis on craniofacial and genetic features. Pediatr Dent. 2008;30:464–8.
4. Athanasiadis AP, Zafrakas M, Polychronou P, Florentin-Arar L, Papasozomenou P, Norbury G, et al. Apert syndrome: The current role of prenatal ultrasound and genetic analysis in diagnosis and counselling. Fetal Diagn Ther. 2008;24:495–8.
5. BS and Kevin C. Chung, MD, MS Eugène Apert and his Contributions to Plastic Surgery.Ann Plast Surg. 2010 Mar; 64(3): 362–365.
6. Mantilla-Capacho JM, Arnaud L, Díaz-Rodriguez M, Barros-Núñez P. Apert syndrome with preaxial polydactyly showing the typical mutation Ser252Trp in the FGFR2 gene. Genet Couns. 2005;16(4):403-6.
7. Kaplan, L C, Clinical assessment and multispecialty management of Apert syndrome. Clinics in plastic surgery 1991;18 (2):217–25.
8. Cohen MM Jr, Kreiborg S, Lammer EJ, Cordero JF, Mastroiacovo P, Erickson JD, Birth prevalence study of the Apert syndrome. Am J Med Genet. 1992;42(5):655-9.
9. Cohen MM Jr, Kreiborg S, An updated pediatric perspective on the Apert syndrome. Am J Dis Child 1993;147(9):989-93.
10. Cohen MM Jr, Kreiborg S, Lammer EJ, Cordero JF, et al, Birth prevalence study of the Apert syndrome. Am J Med Genet 1993; 42(5):655-9.
11. Carinci F, Pezzetti F, Locci P, Becchetti E, Carls F, Avantaggiato A, et al. Apert and Crouzon syndromes: Clinical findings, genes and extracellular matrix.J Craniofac Surg.2005;16:361–8.
12. Batra P, Duggal R, Prakash H. Dentofacial characteristics in Apert syndrome: A case report. J Indian Soc Pedod Prev Dent. 2002;20:118–23.
13. Madhura D, Naresh S. Apert's syndrome: A rare case report. J Indian Acad Oral Med Radiol. 2010;22:232–5.
14. Breugem CC, Fitzpatrick DF, Verchere C. Monozygotic twins with Apert syndrome. Cleft Palate Craniofac J. 2008;45:101–4.
15. Fanganiello RD, Sertié AL, Reis EM, Yeh E, Oliveira NA, Bueno DF, et al. Apert p. Ser252Trp mutation in FGFR2 alters osteogenic potential and gene expression of cranial periosteal cells. Mol Med. 2007;13:422–42.
16. Chang J, DantonT,Hertz V Reconstruction of the Hand in Apert Syndrome: A Simplified Approach Plastreconstr Surg 2002;109:465.

MINUTES OF GOVERNING BODY MEETING

A Governing body (GB) meeting was held on 5th January 2013 at 4.30 pm in the conference room of Prime Medical College, chaired by Dr Shahina Akhter. Most of the members were present during the meeting.
Seven (7) decisions were taken after extensive discussion among the members. The following important issues are highlighted here:

- It was informed to the GB that according to the directives of Ministry of Health & Family Welfare, 6(six) economically under privileged but meritorious students including male and female were selected and admitted in 1st year MBBS in session 2012-13.
- Principal of Prime Medical College Prof Dr MA Wahed discussed about the results of professional exams held in July 2012. It was not up to satisfaction of GB. So GB requested all the teachers & the College authority to guide the students more carefully and ensure their regular attendance in classes.

Among the miscellaneous issues, Prof. Dr. MA Bari, Register of Rajshahi University and Professor Anowarul Islam wanted to know about the procedure of employment in this Medical College. The Principal of this Medical College answered that two employment committee are working here and those are: a) Committee A: 8 members committee for employment of teacher b) Committee B: 5 members committee for class 3 and class 4 staff employment.

a) For the Purpose of employment advertisement notice is published in different National Daily Newspapers. Subsequenty Professors, Associate Professors, and Assistant professors are recruited by selection board. Promotions of departmental candidates are also done through the same selection committee.

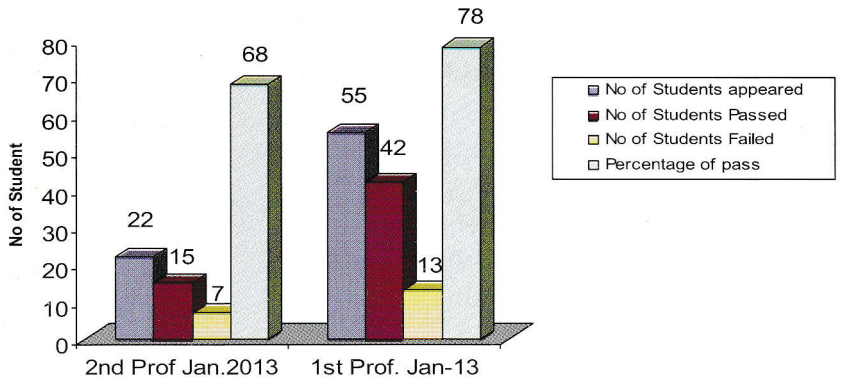
Results of professional examinations:

1st and 2nd Professional MBBS examinations (supplementary) were held on January 2013. The percentages of pass in 2nd and 1st professional exam are shown in the following table and figure:

Table: Result of 2nd and 1st Professional MBBS Examination (Supplementary) in January, 2013.

Exam year	Exam Name	No of Students appeared	No of Students passed	No of Students failed	Percentage of pass
January 2013	2nd Prof	22	15	07	68%
January 2013	1st Prof.	55	42	13	78%

Fig: Result of 1st and 2nd Professional examination (supplementary)January, 2013.



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National Institute on Drug Abuse (US); Caribbean Epidemiology Centre; Pan American Health Organization ; World Helth Organization. Building a Collaborative research agenda; drrug abuse and HIV/AIDS in the Caribbean 2002-2004. West Indian Med J. 2004 Nov; 53 suppl 4; 1-78.

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Eyre HJ, Lange DP, Morris LB, Informed decisions: the complete book of cancer diagnosis, treatment and recovery 2nd ed. Atlanta: American Cancer Society ; 2002.768p.

Contributed chapter of a book :
Rojko JL, Hardy WD. Feline lukemia virus and other retroviruses. In: Sherding RG, editor . The cat; diseases and clinical management. New york: Churchil Livingstone; 1989. p 229-332

Conference Proceedings :
Pacak K, Aguilera G, Sabban, E, Kvetansky R, editors. Stress: Current neuroendocirne and genetic approaches. 8th Symposium on Catecholamines and Other Neurotansmitters in stress: 2003 Jun 28-July 3; Smolenice Castle (place of confernce), Slovakia. New york (Place of Publication), New York Academy of Sciences (pubilisher) ; 2004 Jun. 590p.

Scientific and Technical Reports:
Page E, Harney JM. Health hazard evaluation report. Cincinnati (OH) (Place of publication; National Institute for Occupational Safety and Health) (US) (Publisher); 2001 Feb. 24p (Total number of pages). Report No: HETA2000-0139-2824.

Dissertation & Thesis:
Entire Reference
Kempner JL, Aching heads. making medicine gender and legitimacyin headache (title) [dissertation] [Philadelphia] University of Pennsylvania; 2004-271p.
Alam M. Study of Heart Rate Variability in Adolecent Athletes [M Phil Thesis]. [Dhaka] Bangabandhu Sheikh Mujib Medical University; 2008

Part of Dissertation & Thesis:
Makckwski MP. Human factors: aeropace medicine and the origins of manned space flight in the United States [dissertation]. [Tempe (AZ)]: Arizina State University; 2002 May. Part 2, Space medicine ; p. 188-377.
Alam M. heart Tate Variability in Adolescent Athletes [M Phil thesis]. [Dhaka (Bangladesh)]. Bangabandhu Sheikh Mujib Medical University; 2008 July. Appendix (name of the part 4 (number of the part), Classification of physical Activity Intensity (Tit of the Part). p.7 (Location of the Part).

Standard jouranal article on the Internet:
Kaul S, Diamond GA. Good enough.: a primer on the analysis and interpretation of noninferiority trials. Ann Intern Med [Internet]. 2006 July 4 [cited 2007 Jan 4] ; 145 (1) : 662-9, Available from:http:// www.annals. org/cgi/reprint/145/1/52.pdf

Jouranl article on the Internet with organization (s) as author:
National osteoporosis Foundation of South Africa. Use of generic alendronate in treatment of osteroporosis. S Afr Med J [Inernet]. 2006 Aug [cited 2007 Jan 9] ; 9 (8);696-7.Avilable from:http:/blues.sabinet.coza/WebZ/Authorize?

Journal article on the Internet with governmental body as author:
Centers for Disease Control and Prevention (US), National center for HIV/AIDS, Hepatitis, STD, and detection and control of tuberculosis in correctional and detection facilities: recommendations from CDC. Endorsed by the American correctional Association. MMWR R Rep[Internet]. 2006 July 7 [cited2007Jan9]; 55(RR-9]; 1-44. Avilable from: http/www.cdc.gov/mmwr/preview/mmwrhtml/rr5509al.htm.

Journal article on the Internet with no author:
Prevention stategies for Asthma-secondary prevention. CMAJ [Internet]2005 Sept[cited2007 jana5]; 173(6Suppl); S25-7. Available from;http//www.cmij.ca/content/full/173'6__supp1/s25.

Journal article on the Internet without standard volume, issue or article number:
jacobs JL, Lee MT, Lindberg M, kamin C. Problem based learning, multimedia paucity of behavioral issue learninig Med Educ. Online [Interner]. 2005[cited2005]: [5p]. Available from:http:www.med-ed-online.org/pdf/10000006.pdf.