

JALALABAD MEDICAL JOURNAL

Volume 10, Number 02, January 2013

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Journal Published by
Jalalabad Ragib-Rabeya Medical College, Sylhet

(A welfare institution founded by Mr Ragib Ali)

E-mail: jrrmcinfo@gmail.com; Website: jrrmc.edu.bd



**JALALABAD MEDICAL
JOURNAL**

**JALALABAD MEDICAL
JOURNAL**

ISSN 1818-1104

Volume 10, Number 01, January 2013



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Editorial

Being Editor of A Medical Journal

The pleasure of being editor of a medical scientific journal is always overshadowed by the responsibility with which it comes, the journal should satisfy the expectation of a much diversified community of doctors; should be a nurturing instrument for very busy people; carry useful message and so on and so forth regardless of how little it may seem be to everyone who goes through its pages. In some societies lack of knowledge about available treatment modalities that are mentioned in current medical journals and hence depriving a patient from lessons learned by other doctors working in the field is considered as malpractice and is subjected to legal actions.

Journals are supposed to update the doctors about search, research and development. So the journals should be read, may be briefly, very briefly, but should not remain unnoticed and unread. Everyone has to like something in it, appreciate one or two articles, or dislike some, feel that some topics are not appropriate, or even have complaints about over all process, materials published and even design, color and print of the journal. There should be some reaction to it, some feeling about it and it should be expressed, positive or negative so that we may bring changes where needed. Reader's opinion may reach the editors in writing, email, sms, or even verbally.

The nature and wide variety of materials arriving for the publication makes the job of the editors somehow exciting, if the morning starts with "variation of courses of coronary arteries", it may end up with "methods of contraceptive among certain populations"! Sometimes you want to dig into it there and then and sometimes you may wish to be the last person to do anything about it. Sometimes the articles are simple, informative and easy to get to the conclusion and other times entire page is full of digits, calculations and references which in turn are references about references!

Routinely the articles are subjected to some early reading by any of the authors (and evaluated getting connected to MEDLINE, Pubmed, CINAHL, Cochrane and HINARI to mention some), evaluated and scrutinized and finally sent to reviewers for extra corrections and opinions. Intentional or accidental overlaps and conflicts are sorted out; those which look less genuine are further examined through online sources. Some of the less "sick" articles are on the tract after certain manipulations and very "unhealthy" ones have to be discarded. Editors always look forward for an exciting article to start the day with, where too much information and too many details are avoided and message is clear and easier on the eyes. A busy reader can satisfy his urge by going through abstract and conclusion alone and similarly a reader of the subject gets pleasure and manages time to read it completely.

Here lies the critical task for the team of editors, how to categorize the articles, mold them without disturbing their main structure and make them smooth to the mood and spirit for majority of the readers. The editors have to complete the work considering features beyond what is mentioned in the last page of the journal like "instruction to authors" and instead take care of the matters which may make the journal useful and attractive.

Even after doing all this we are not sure if we are releasing a journal which will be read by majority of our fellow colleagues. The obvious urge for submitting an article, as it is now an important component of curriculum vitae should not be the purpose of submitting an article. The aim is to polish the already known but less used disciplines and also to disseminate some useful knowledge for interested readers, (far better to inspire a reader to become interested to read it!)

If you are still reading this it means you are feeling the pinch! We don't want to prepare journals which leave the table for the shelf without going through the mind and soul. And yes, if you are still reading it, then it should have gone through the scrutiny and has come up successful!

The journal should be effective and to read it is an important part of any doctor's daily routine, be it a root level health provider, a general practitioner or a doctor at any rank and post in a medical college campus. Both the

groups, authors and editors should take this matter into consideration and remember that if it is going to be published it should be simple, informative, inspiring and at the end, satisfying. Too many details of a fragment of a thesis, protocol or dissertation may be boring for the majority of the readers, and remaining interested individual may contact the authors as they wish for detailed information either directly or through editor.

Like any other material this editorial will go through scrutiny by the editors, reviewed and if found eligible, you are reading it now or otherwise we will try to communicate with you in some other way!

Last but not the least my apologies to some of the critical readers, please don't look for Vancouver or Harvard type of references, there is no any!

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Original Article

Neonatal Morbidity and Mortality Pattern in a Tertiary Care Hospital in Sylhet

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ABSTRACT

To identify the main causes of neonatal morbidity and mortality, a retrospective study was carried out in the neonatal unit of Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet for a period of two years from January 2009 to December 2010. A total of 4014 neonates were included in this study. Neonatal admission was 36.6% of total paediatric admission during the study period. Major causes of morbidity were perinatal asphyxia with various stages of hypoxic ischemic encephalopathy (30.72%), sepsis (17.69%), premature LBW (10.61%), neonatal jaundice (9.87%). Among the total neonatal admission, death occurred in 301 (7.5%). The highest mortality was contributed by perinatal asphyxia (38.54%) followed by sepsis (33.56%) and premature LBW (20.93%). One day old neonates contributed most to the neonatal deaths and male baby outnumbered female.

Key words: Perinatal asphyxia, Premature LBW, Neonatal septicemia.

[Jalalabad Med J 2013; 10(1): 3-6]

INTRODUCTION

Death in the newborn period within 28 days of birth is a major barrier in improving the survival of children aged less than five years in the developing countries¹. Global rates of under five and infant mortality have declined over the last four decades but high rates of neonatal mortality have remained relatively unchanged². About two-thirds of all infant deaths and 38% of all under five deaths occur during neonatal period, resulting in about 4 million neonatal deaths globally per year³. Worldwide 98% of all neonatal deaths occur in the developing countries, most often at home, outside formal healthcare system⁴. According to World Health Organization (WHO) premature birth accounts for 30% of global neonatal deaths, followed

by sepsis and pneumonia 27%, birth asphyxia 23%, congenital abnormalities 6%, tetanus 4%, diarrhea 3% and other causes 7%¹.

In Bangladesh neonatal mortality remains an alarming public health problem. Very few studies have reported information on neonatal health situation in our country. Data from Bangladesh Demographic Health Survey (BDHS) 2007 show that more than 70% of all infant deaths and 56% of all under five deaths occur during the neonatal period⁵. About 153000 newborns die each year in Bangladesh alone, accounting for about 4% of global neonatal death⁶.

One of the Millennium Development Goal (MDG-4) is to reduce the child mortality rate (under five) by two-thirds by the year 2015 from a base line in 1990. Since 2003, it has been recognized that without a substantial reduction in neonatal death, MDG-4 will not be met⁶. Therefore appropriate interventions are crucial for improving the health of under five children in Bangladesh and to help achieve the global target of

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MDG-4. Information on the timing and causes of neonatal death can help to direct appropriate interventions. This retrospective study was done in the neonatal unit of Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet to identify the main causes of neonatal morbidity and mortality in this hospital.

MATERIALS AND METHODS

This retrospective study was carried out in the neonatal unit of Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet from 1st January 2009 to 31st December 2010. This center is a tertiary care center with facilities of intensive care, ventilation and exchange transfusions. A total of 4014 neonates were enrolled in this study. A structured questionnaire including information about antenatal care, maternal morbidity, mode and place of delivery, age, sex, weight at admission, gestational age, diagnosis, relevant investigations, duration of stay and outcome was used for the collection of data. Diagnosis was made on the basis of clinical, radiological and selected laboratory findings.

RESULTS

Total neonatal admission was 36.6% of total paediatric admission during this period. Out of 4014 neonates 301 died. The mortality rate was 7.5%. Major causes of morbidity were perinatal asphyxia with various stages of hypoxic ischaemic encephalopathy (30.72%), sepsis (17.69%), premature LBW (10.61%), neonatal jaundice (9.87%) and umbilical infection (1.84%) [Figure-1]. Table-I shows the neonatal deaths according to the age of the neonate on the day of hospital admission. Most deaths occurred in one day old babies (68.11%). Table-II shows the gender distribution of the neonatal deaths. Among the total neonatal deaths 60.8% were of male sex. Figure-2 shows the number of neonatal deaths according to the disease pattern in the neonatal unit.

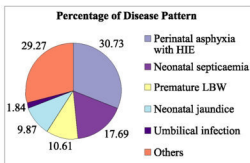
Among 301 neonatal deaths during the study period most were contributed by perinatal asphyxia (38.54%), followed by septicaemia (33.56%) and premature LBW (20.93%).

Table-I: Age distribution of neonatal death (n=301).

Age	Frequency	Percentage
1 day	205	68.11
2-3 days	61	20.27
4-5 days	13	4.32
6 days or more	22	7.31
Total	301	100

Table-II: Gender distribution of neonatal death (n=301).

Sex	Frequency (%)
Male	183 (60.8)
Female	118 (39.2)
Total	301 (100)



HIE : Hypoxic ischaemic encephalopathy, LBW : Low birth weight.

Figure-1: Disease pattern of studied neonate (n=4014).

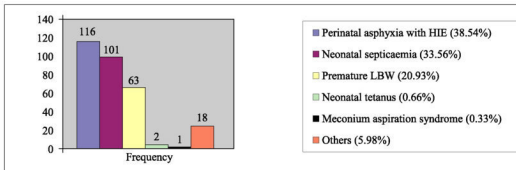


Figure-2: Neonatal death according to disease pattern (n=301).

DISCUSSION

This study attempted to identify the causes of neonatal admission and outcome in Jalalabad Ragib-Rabeya Medical College Hospital and our study identifies the major causes of neonatal admission into this hospital as, perinatal asphyxia with various stages of hypoxic ischemic encephalopathy, septicaemia, premature LBW and neonatal jaundice. Other studies done in different centers in Bangladesh support this finding of presenting features for neonatal admission. Perinatal asphyxia is an important cause of neonatal morbidity and mortality in the neonatal units. In our study majority (30.72%) neonates were admitted with perinatal asphyxia with different severity and the mortality contributed 38.54%. A study done in Dhaka Shishu Hospital showed that perinatal asphyxia was the leading cause of neonatal mortality and it was 40.7% of total neonatal deaths⁷. In many other studies premature LBW, sepsis, perinatal asphyxia were the major risk factors of neonatal deaths in the developing countries^{6,8,9,10}.

According to one UNICEF report¹¹ one third of neonates are born with low birth weight in Bangladesh. The high proportion of LBW in our study was similar to those, reported from other tertiary care hospitals in our country^{12,13,14}. Premature LBW babies suffer more from respiratory distress, apnoea, infections and jaundice. The risk of neonatal death is inversely proportional to the birth weight of the neonate¹⁵. In this study we found LBW babies contributing 3rd highest (20.93%) to the total neonatal deaths.

The incidence of neonatal tetanus is much reduced now a days but mortality due to neonatal tetanus is still high. One report from Bangladesh¹⁶ shows that neonatal tetanus contributes 15% of neonatal death. In our study we found only 4 neonates admitted with tetanus during the study period of two years and 2 of them died, thus the mortality was 50% due to tetanus. Neonatal tetanus is very easily preventable disease by giving TT vaccinations to females of child bearing age. Our findings reflect poor vaccination coverage to this age group in this area.

Neonatal sepsis is still a major cause of neonatal death in the developing countries^{5,6,7}. In our study it accounted for 33.56% of total neonatal death which is similar to other national studies^{12,13,14} where neonatal death due to sepsis were 33%, 15.9% and 14.28% respectively.

CONCLUSION

Perinatal asphyxia, septicaemia and premature LBW were the main causes of neonatal hospital admission

and death in our study. We found that low birth weight, sex of the baby, prematurity and infections were the major predictors of neonatal death. A significant number of this unfortunate neonatal deaths can be avoided through improved quality of antenatal, intrapartum, postpartum care and wide spread appropriate health education.

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Original Article

Management of Incisional Hernia: A Retrospective Observational Study of 80 Cases

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ABSTRACT

Incisional hernia may be a complication after any kind of operation, resulting from disruption of fascial layers. Many studies have conducted in various aspect of incisional hernia in the west but number of study in our country is few. Objectives of this study were to evaluate the incidence and causes of incisional hernia, to evaluate the results of different operative techniques and prosthetic materials used and the postoperative complications. This study was designed as retrospective observational study and carried out in Jalalabad Ragib-Rabeya Medical College Hospital Sylhet, from January 2010 to December 2011. Patients who underwent surgical intervention previously and developed hernia through the incisional site were included in the study. Pfannenstiel incision (35%) and midline incision (37%) were most commonly affected. Incidence was high in emergency cases (72.58%). Wound infection (50%) and postoperative pulmonary complications (27.5%) were major contributing factors.

Key words: Prosthetic mesh repair, Incisional hernia, Postoperative complication.

[Jalalabad Med J 2013; 10(1): 7-12]

INTRODUCTION

Incisional hernia is the result of failure of the lines of closure of the abdominal wall following laparotomy. The approximated tissues separate and abdominal organs mainly bowel, bulge through the gap, which is covered from inside outwards with peritoneum, scar tissue and skin. It develops in scar of a surgical incision resulting from disruption of fascial layers excepting skin. Because of this, abdominal wall cannot support the intraperitoneal structures and causes an abnormal protrusion or hernia. It may be small even insignificant or it may also be large unsightly and uncomfortable. Only large sac with a narrow neck increases the risk of strangulation. Primary disease for which operation was performed; post operative complications, inappropriate

suture material and generalized debility increase the incidence of incisional hernia. Midline vertical incisions are most often affected and poor technique, wound infection and post operative distension or chest infection are important factors¹. There are various methods of repair of incisional hernia, but most of these have recurrences. However at present prosthetic mesh repair is the gold standard of incisional hernia repair which has lesser incidences of recurrence. In the best centers, the incidence of postoperative hernia has been at least 10% as shown by long term follow up studies². An incisional hernia patient is a living document of surgical skill, a constant reminder of the need for furthering our understanding and development of the basic concepts in this field. No extensive study has yet been made until today about its prevalence, predisposing factors, pathogenesis, who are more prone to such complication, what are the operations following which it occurs and what is the incidence of incisional hernia in our country. This study was carried out to

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evaluate the incidence of incisional hernia after different operative procedures, causes, primary diseases, postoperative complications, presence of metabolic disease and types of suture material used.

MATERIALS AND METHODS

This retrospective observational study was carried out in Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet from January 2010 to December 2011. Eighty patients who underwent surgical intervention for incisional hernia were selected from different surgical units of this hospital. Incidence after different primary diseases, nature of operation, post operative complications, presence of metabolic diseases and types of suture materials used were tabulated. Study was also made to identify causes in each case. In this study different operative techniques were found to be used and the results after each technique were evaluated.

1. Keel's operation: Without opening the peritoneal cavity, the fibroperitoneal layers are approximated and inverted in multiple layers. When necessary, tension can be reduced by 1 cm vertical releasing incision arranged in the rectus sheath.

2. Reconstitution of anatomical layers: Excision of excessive parchment like skin and fibrous tissues and then repair layer by layer. The peritoneal edges are freed and the anatomy is restored by stitching peritoneum to peritoneum, muscle to muscle, sheath to sheath and skin to skin.

3. Prosthetic mesh: For successful repair, a piece of mesh is attached to each side of the defect and then sutured together.

4. Onlay graft repair: Placing a patch anterior to the aponeurosis and the defect, may be needed to bridge large gaps which may or may not have been sutured.

The data were calculated for the ordinal and categorical variables. All the statistical data analysis was performed by SPSS.

Utmost care was taken studying these 80 cases, regarding their previous operative history and clinical examination. Hospital records about each patient revealed that efforts were given during perioperative period for preventing complications. Skin care and associated diseases were treated preoperatively. General anaesthesia, proper relaxation and well haemostasis were maintained during operative period. Patients were kept in the postoperative room for at least 24 hours and then shifted to bed and aseptic

precautions were maintained to prevent any cross infection. Dressing, drains were checked properly in the post operative period. On discharge all necessary advice were given. Subsequent follow up maintained twice weekly, four weekly and then six monthly intervals.

RESULTS

A total of 80 cases of incisional hernia, who underwent elective hernia surgery by different techniques such as Keel's operation, reconstitution of anatomical layers, prosthetic mesh repair, onlay graft repair etc. in the department of surgery, JRRMCH, Sylhet from January 2010 to December 2011 were studied. There were 58 women and 22 men. The age of patients ranged from 21 years to 72 years and maximum were between 31 and 40 years. The time lapse between primary surgery and development of incisional hernia showed that forty patients (50%) developed hernia within three months, fourteen patients (17.5%) developed hernia by six months and remaining twenty six patients (32.5%) developed hernia later than six months of surgery.

Table-I: Age distribution of patients (n=80).

Age (year)	Number of patients	Percentage
21-30	4	5
31-40	44	55
41-50	10	12.5
51-60	16	20
61-70	4	5
71-80	2	2.5

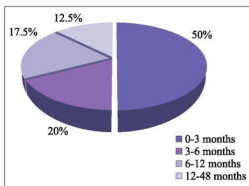


Figure-1: Time interval between surgery and onset of hernia.

Table-II: Different sites of incisional hernia (n=80).

Site	Number of patients	Percentage
Subumbilical or hypogastrum	32	40
Epigastrum and umbilical region	24	30
Right hypochondrium	6	7.5
Right iliac fossa	8	10
Inguinal	8	10
Lumbar	2	2.5

Table-III: Different types of incision (n=80).

Incisions	Number of cases	Percentage
Upper midline	14	17.5
Lower midline	10	12.5
Paramedian	10	12.5
Pfannenstiel	28	35
Kocher's	4	5
Gridiron	4	5
Inguinal	8	10
Lumbar	2	2.5

Table-IV: Aetiological factors of incisional hernia (n=80).

Factors	Number of cases	Percentage
Wound infection	40	50
Pulmonary complications	22	27.5
Wound dehiscence	14	17.5
Multiple operations (caesarean)	16	20
Urinary problems	4	5
Constipation	8	10
No cause	10	12.5
More than one factor	20	25

Table-V: Nature of initial laparotomy (n=80).

Types of surgery	Gynecological & obstetrical	General surgical	Total	Percentage
Elective	8	14	22	27.5
Emergency	28	30	58	72.5

Table-VI: Techniques of hernia repair (n=80).

Name	Number of cases	Site of previous incision
1. Keel's operation	5	Paramedian
	4	Gridiron
2. Reconstitution of anatomical layers	5	Paramedian
	4	Kochers subcostal
	2	Lumbar
3. Prosthetic mesh (Inlay, onlay and sandwich)	24	Midline (upper and lower)
	28	Pfannenstiel
	8	Inguinal

Table-VII: Complications after repair of incisional hernia (n=30).

Complications	Number of cases		
	Keel's operation	Reconstitution of anatomical layers	Prosthetic mesh (Inlay, onlay and sandwich)
Wound seroma	6	2	4
Wound infection	4	2	00
Wound haematoma	2	00	00
Wound dehiscence	1	00	1
Deep vein thrombosis	00	1	1
Pneumonia	1	1	00
Recurrence	1	1	00
Wound pain	1	00	1

All wound infection were superficial, involving subcutaneous tissue treated by dressing and antibiotics, one case required secondary suture. Mean hospital stay was 7 days. Subsequently the patients were followed up after 2 weeks, 4 weeks and then 6 monthly for 1 year but only 5 patients continued the last visit. All of them were quite well except mild wound pain.

DISCUSSION

Incisional hernia at various sites remains a major problem and one of the main challenges for the general surgeons and one of the morbidity for the patients. The tragic fact remains that many patients suffered from this complication though careful preoperative preparation, peroperative technique and post operative management done properly¹. Incisions are made to enable surgeons to enter the body cavities and it is surprising that their construction and reconstruction has not attracted more attention. Despite the advances of surgical technology we are still facing patients complaining of painful and uncomfortable disability of incisional hernia in spite of the best efforts that the surgeons usually make.

There are few studies of incisional hernia. In the recent available literature Akman³ reported on 500 incisional hernia repairs from 1945 to 1960 while Hortan and

Smith recorded the results of 36 hernia repair between 1945 and 1963. A careful study of various literatures dealing with this subject reveals an incidence, varying from 5-11%⁴. The present study of 80 cases of incisional hernia is a retrospective study of cases which were repaired by different methods including prosthetic mesh, the gold standard of incisional hernia repair and subjected to review the benefit of patients and surgeons.

It was not possible on our part to review the overall pattern of this disease in Bangladesh. Still we gave utmost effort to make this discussion informative and to compare this study with the study of different workers both home and abroad.

Table-VIII: Age incidence in the studied literatures.

Series	Peak incidence
Bucknall ⁵ 1982	6 th decade
Ellis ⁴ 1983	6 th decade
Siddique ⁶ 1988	4 th and 5 th decade (50%)
Alam ⁷ 1989	4 th and 5 th decade (50%)
Alam ⁸ 1993	4 th and 5 th decade (50%)
Afzal ⁹ 1998	4 th and 5 th decade (54%)
Present series 2010-2011	4 th decade (55%)

Table-IX: Sex incidence in the studied literatures.

Series	Country	Percentage	
		Male	Female
Bucknall ⁵ 1982	England	25	75
Siddique ⁶ 1988	Bangladesh	29.6	70.4
Alam ⁷ 1989	Bangladesh	32.5	67.5
Dave ¹⁰ 1991	Nigeria	43	57
Alam ⁸ 1993	Bangladesh	24	76
Afzal ⁹ 1998	Bangladesh	30	70
Present series 2010-2011	Bangladesh	27.5	72.5

Table-X: Incidence of incisional hernia at different sites and incisions.

Site	Fischer ¹¹	Bucknall ⁵	Siddique ⁶	Alam ⁷	Alam ⁸	Afzal ⁹	Present series 2010-2011
	1974	1982	1988	1989	1993	1998	
Midline	39	48	67	70	74	76	14
Lower midline	24	NR	NR	NR	62	58	10
Epigastric or upper abdomen	18	NR	NR	NR	14	18	NR
Subcostal	20	1	5	10	8	8	4
Paramedian	15	38	28	20	66	8	10
Upper transverse	24	NR	NR	NR	2	NR	NR
Pfannenstiel	NR	NR	NR	NR	6	6	28
Gridiron	NR	NR	NR	NR	2	2	4
Roof top	NR	NR	NR	NR	NR	NR	NR
Inguinal	NR	NR	NR	NR	NR	NR	8
Lumbar	NR	NR	NR	NR	NR	NR	2

NR=Not recorted.

Table-XI: Initial operative procedure.

Types of operation	Ponka ¹²	Northtees ¹³	Alam ⁷	Alam ⁸	Afzal ⁹	Present Study 2010-2011 (%)
	1980 (%)	1981 (%)	1989 (%)	1993 (%)	1998 (%)	
Caesarean section	7	12	50	38	34	40
Hysterectomy and other pelvic organ	35	21	7.5	26	26	5
Cholecystectomy and biliary tract	21	11	10	14	14	12.5
Stomach /duodenum	12	30	22.5	12	16	10
Ileal perforation						5
Resection anastomosis of gut						7.5
Prostatectomy	00	00	5	6	6	00
Colectomy	9	9	00	2	2	00
Appendicectomy	16	16	5	2	2	2.5
Laparotomy for perforated appendix	00	00	00	00	00	5
Pyelolithotomy	00	00	00	00	00	2.5
Others						10

CONCLUSION

Incisional hernia is a complication of abdominal surgery. Factors relating to the incidence of incisional hernia are manifold ranging from technique of wound closure, nature of incision, type of operative procedure whether routine or emergency, pattern of anaesthesia, general condition of the patient, obesity, infection and post operative abdominal distension. Prevention of risk factors may help in the prevention of development of incisional hernia. It can be easily assumed that lacking of proper logistic support and poor socio-economic condition of our country, abdominal surgery must always not give good results and a higher incidence of complication may be present which is not studied till now. Regarding procedure, more surgeons are practicing repair of incisional hernia by mesh repair. The claim that it is the best technique needs further

evaluations.

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Original Article

Contraceptive Practices Among the Married Women of Reproductive Age Attending Out Patient Department of a Tertiary Hospital

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ABSTRACT

Contraception has been the single most important intervention to promote healthy living among young women and to reduce burden of unwanted pregnancy. This was a cross-sectional observational study done during the period of January to June 2012 in Jalalabad Ragib-Rabeya Medical College Hospital (JRRMCH), Sylhet. Current study was planned to explore the contraceptive practices among females of reproductive age (15-45 years) attending the outpatient department of JRRMCH, Sylhet. A total of 550 respondents who came to different outpatient department in the age ranging from 20 to 40 years were studied. Among the respondents 69.45% were using methods of contraception and 12% couples were using barrier methods. Whereas 18.55% were not using any method of contraception. Forty-four percent of women had 2 to 3 children and 63.45% of respondents were with the duration of married life more than eight years. About 60% of women used oral pill followed by injectable form 17%, female sterilization 4.69% and intrauterine contraceptive device (IUCD) 3.35%. Method mix was found to be 7.59%. It was evident from this study that capacity building in family planning services in Bangladesh is yet to be enhanced.

Key words: Contraceptives, Fertility, Family planning.

[Jalalabad Med J 2013; 10(1): 13-17]

INTRODUCTION

An increase in contraceptive prevalence results in reduction of population growth, which in turn contributes significantly to the improvement of people's health. Family planning (FP) is an essential tool for reducing fertility rate¹. Bangladesh had high rates of population growth in the 1960s and 1970s. Since then however it has seen a marked reduction in its total fertility rate. Over a period of three decades it dropped from almost 7 to 2.4 in 2005-2010². In recent years, knowledge of family planning and contraceptive use have accelerated in Bangladesh and are playing a remarkable role in controlling fertility, particularly in

reaching the replacement level of fertility. In this regard, both government and nongovernment organizations (NGOs) have been employing various strategies. Many researchers believe that, this is an impressive achievement within Bangladesh, a Muslim country where different familial, socioeconomic, cultural and religious taboos still prevail³. Almost all married women in Bangladesh (99.9%) have heard of at least one FP method. The use of contraceptive among married women has increased from 7.7% in 1975 to 55.8% in 2007. Although the overall knowledge of contraceptive methods is high in Bangladesh but the prevalence of use of these methods is still low^{4,5,6}.

The demographic profile of South Asia is one of high levels of fertility, low ages at marriage and relatively low contraceptive prevalence. The behavior related to reproduction is determined by cultural and religious

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values in some communities⁷. The prevalence of contraceptive use has increased worldwide due to the development and introduction of modern contraceptives and the establishment of organized family planning programs⁸. The contraceptive prevalence in many developing countries rose from 9% in the 1960 to 60% in 1997⁸ and this has helped in reducing the total fertility rate of some developing countries (The lifetime average number of children per woman) from 6 in 1960 to 3.1 in 1997⁹. Contraceptive use prevalence in Bangladesh has steadily grown from 7.7% of currently married women in 1975 (Ministry of Health and Family Welfare 1978) to 58.1% in 2004 (UNPD 2005). Bangladesh Demographic and Health Survey (BDHS) showed contraceptive prevalence rate (CPR) of Sylhet was 25% in 2007 and 35% in 2011. However, the aim is 50% CPR in Sylhet by the year 2016. This has mainly been due to a large increase in the number of couples using oral and injectable contraceptives. The trend toward women wanting and having smaller families and trying to time their children's births, is nearly universal. For decades, women in the United States, like those in many European countries, typically have wanted not more than two children, whereas in Latin America, Asia, the Middle East and North Africa, women now generally want 2-3 children. Large families are still desired in Sub-Saharan Africa, 5-6 children on average, but even there, women want smaller families than their mothers and grandmothers did.

MATERIALS AND METHODS

A total of 550 currently married female were selected from the different outpatient department of JRRMCH, Sylhet. A cross sectional study was carried out randomly among the married women of reproductive age (15-45 years) during the period of January to June 2012. Women whose husband live abroad were excluded. The data was collected by using a semi structured questionnaire containing socio-demographic or other relevant information such as age, sex, religion, education, expenditure and their percentages of methods of contraceptive used were determined.

RESULTS

A total of 550 currently married women in the age group of 20-40 years were studied; 296 (53.81%) of them came from city and 254 (46.18%) were from different villages. About 88.18% were house wife and 11.82% were service holder. Table-I presents different study parameters. In the survey 91% of the respondents were Muslim and 9% were Hindus. Among the

respondents 32.73% belonged to the age group 21-25 years followed by 31% in 26-30 years. The mean age was 26.19 years. About 64% of the respondents studied up to secondary level, 18.73% were illiterate. Most of the respondents (61%), family expenditure was ten to fifteen thousand taka per month. Only 18% of studied population expenditure was less than five thousand taka. Out of 550 females, 63.45% were married for more than eight years and 44.18% had 2 to 3 children (Table-II, III). A total of 448 (81.45%) women were using contraceptives and 18.55% (102) were not practicing any form of contraceptives (Figure-1). Among the contraceptives users 95.31% had adapted temporary contraceptive method and 4.69% were on permanent method. Among temporary method users (448), majority were using oral contraceptives 268 (59.82%), followed by injection DMPA (16.96%), sub dermal implant norplant (0.45%) and CuT (3.35%). Condoms were used only by 14.73% couples (Figure-2). Method mix was found to be used by 34 (7.59%). Table-IV shows age specific distribution of contraceptives. Women of 20-30 years group practice oral pill and injection. Women of 31-40 years age group practice oral pill, injection, CuT and permanent methods. Some women were reluctant about the use of contraceptive because they practice natural method.

Table-I: Socio-demographic characteristics of respondents (n=550).

Variables	Frequency	Percentage
Age (Years)		
21-25	180	32.73
26-30	171	31.09
31-35	107	19.45
36-40	92	16.73
Religion		
Muslim	500	90.9
Hindu	50	9.1
Place of residence		
City	296	52.82
Village	254	46.18
Literacy		
Illiterate	103	18.73
Primary	191	34.73
Secondary	161	29.27
SSC	52	9.45
HSC	18	3.27
Graduate	25	4.55
Occupation		
Housewife	485	88.18

Service	65	11.82
Expenditure (Monthly)		
<5000 Tk	101	18.37
<10000 Tk	192	34.91
<15000 Tk	145	26.36
<20000 Tk	79	14.36
>20000 Tk	33	6

Table-II: Distribution of respondents according to their duration of married life (n=550).

Duration	Frequency	Percentage
0-2 years	41	7.45
2-4 years	51	9.27
4-6 years	59	10.73
6-8 years	50	9.1
>8 years	349	63.45
Total	550	100

Table-III: Distribution of respondents according to their number of children (n=550).

Number	Frequency	Percentage
0-1	149	27.09
2-3	243	44.18
4-5	98	17.82
6 or more	60	10.91
Total	550	100

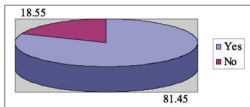


Figure-1: Percentage of contraceptive users (n=550).

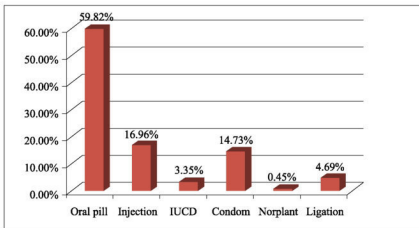


Figure-2: Contraceptive prevalence among the respondents (n=448).

Table-IV: Age specific distribution of contraceptives used by female partners (n=382).

Age	Oral pill	Injectable	IUCD (Cu-T)	Ligation	Norplant	Total
20-25	118	10	0	0	0	128
26-30	62	21	1	0	2	86
31-35	45	25	7	11	0	88
36-40	43	20	7	10	0	80
Total	268	76	15	21	2	382

DISCUSSION

Since Bangladesh is one of the most densely populated countries in the world, family planning is becoming increasingly important in the context of increasing the prevalence of contraceptive use and reducing the level

of fertility. Thus, knowledge of family planning methods is widespread in mainstream Bangladeshi society, where almost all married women know at least one FP method⁴. In Bangladesh, oral contraception is popular and is gradually increasing its share in the

current methods mix⁸.

Awareness plays an important role in motivating females to have a favorable attitude towards family planning. The study revealed that almost all people who came in access or contact with health services were practicing contraceptives (81.45%). In the present study, among the contraceptive users 95.31% had adapted temporary contraceptive method and 4.69% adopted permanent method. Among temporary method users, majority were using oral contraceptives (59.82%), followed by injection DMPA (16.96%), sub dermal implant norplant (0.45%) and CuT (3.35%). Condoms were used by 14.73% of couples (Figure-2). Method mix was found to be used by 7.59%.

Similar findings were observed among respondents who came in Bangladesh Bank Medical Centre, Motijheel, Dhaka. Among them 87.82% were using any one method of contraception. Of them modern method and natural method were used by 79.76% and 20.23% women respectively⁹. Method mix were used by 7.97%, which was same as our study.

In our study, 81.45% women were using contraceptives which is nearly similar with a recent survey where 42-68% of married and unmarried but sexually active adolescent females in all the Latin American countries (except Guatemala and Haiti) and in Bangladesh, Indonesia, Kazakhstan and Turkey reported currently using contraceptives¹⁰.

In present study about 95% respondents had adopted temporary contraceptive methods, this finding is consistent with a study in France where two-thirds of French women used some form of reversible contraceptive method¹¹.

Sixty-three percent of reproductive age women in the United States who practice contraception use nonpermanent methods, including hormonal methods (Pill, patch, implant, injectable and vaginal ring), IUD and condoms. The remaining women rely on female or male sterilization. Contraceptive choices vary markedly with age. For women younger than 30 years oral pill is the leading method. Among women aged 30 and older, more rely on sterilization¹². Our study also revealed similar scenario. However, a study reported in Belgium revealed that, out of 2106 married women 59.92% were using contraceptives, among them 45.67% had adapted permanent contraceptive method and 14.25% were using temporary method. Couple protection rate were 59.92%¹³.

CONCLUSION

This study concluded that the prevalence of contraceptive use is increasing among Bangladeshi

women. The oral contraceptives and injectable forms are more commonly used in Bangladesh than in any other method. The pill is by far the most frequently used contraceptive method and contributes 60%. Among the young women of 20 to 30 years contraceptive use is rising. An expanded demand for contraceptive supplies, services and information can be expected to challenge the preparedness, capacity and resources of existing family planning programs and providers.

RECOMMENDATION

Therefore, there is a great need in Sylhet to promote youth-friendly reproductive services to encourage sexually active young people to increase their contraceptive use. However, this must begin by mass education of the adult population.

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Original Article

Psychiatric Disorders among the Married Female Patients who's Husbands were Working Abroad

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ABSTRACT

This cross sectional, descriptive study was done to find out psychiatric disorders among the admitted married female patients whose husbands were working abroad. This study was conducted in the department of Psychiatry and Medicine of Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet from April 2011 to March 2012. One hundred ten married female patients whose husbands were working abroad were selected according to inclusion and exclusion criteria in this study. Psychiatric disorders were diagnosed according to DSM-IV TR criteria and medical disorders were diagnosed by clinical examinations and relevant investigations. Among the patients 93.6% were housewives and 60% were below the age of 30 years. Psychiatric disorders were present in 87.3% and medical disorders were present in 33.6% cases. The commonest psychiatric disorder was conversion disorder (32.7%), followed by major depressive disorder (20%), generalized anxiety disorder (17.3%), other somatoform disorder (7.3%), schizophrenia (4.6%), bipolar mood disorder (3.6%), and panic disorder (1.8%). In this study, the finding of a large number of psychiatric disorders present in married female patients whose husbands were working abroad were a matter of concern.

Key words: Married female patients, Husbands working abroad, Psychiatric disorders.

[Jalalabad Med J 2013; 10(1): 18-21]

INTRODUCTION

It has been experienced that a significant number of female, whose husbands were working abroad have psychiatric disorders. Universally it is estimated that 5-10% of the population at any given time is suffering from identifiable neurotic disorder needing psychiatric or psychosocial intervention¹. Women have higher rates of depression than men. The life-time risk of developing depression is 10-20% in females¹. According to different studies, the prevalence of anxiety and depression among women ranges from 30-66%^{2,3,4}. Psychiatric disorders are complex phenomena

and there is no single factor which can explain the cause. Social environment has been identified as one of the major determinants of depression⁵. It includes both social conditions and social relations^{6,7}. The identified factors associated with psychiatric disorders among women are, being a housewife, relationship problems with husband and in-laws, having four or more children, financial difficulties and lower level of education, battering and verbal violence^{6,8,9}. Marital satisfaction has been negatively associated with depressive symptoms^{4,10}. It is obvious that male labor out-migration increases the female headed households in the community. However, in the context of Bangladeshi social structure the female household heads would have a de facto position with a limited decision making power¹¹. However, they use this position in an ambiguous way, not only in deciding for which decisions they need their husband's consultation

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that increases stress and anxiety. Children are sent to private schools which are functioning better than the government schools in Bangladesh and mothers have worries and complaints about their hardship to handle children in the absence of fathers which increases stress and anxiety.

MATERIALS AND METHODS

This was a cross sectional descriptive study, conducted in the department of Psychiatry and Medicine, Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet, during the period from April 2011 to March 2012. For this purpose 110 married female patients, admitted in psychiatry and medicine ward, whose husbands were working abroad were selected consecutively as study group. Patients with severe cognitive impairment, unresponsive attitude and stupor were not included in this study. Informed consent was taken before enrollment in this study. Ethical issues were maintained properly. The respondents were interviewed using questionnaire containing sociodemographic and other informations like age, sex, type of family etc. which was structured and fix response in type. Detail history was taken, full clinical examinations were done and also relevant investigations were performed in appropriate cases. Psychiatric screening was carried out by the Bangla version of General Health Questionnaire (GHQ-12) recorded in a sheet. In patients with GHQ-12 positive scores, psychiatric diagnosis was assigned according to DSM-IV TR criteria for Axis I and primary psychiatric disorders. Medical disorders were diagnosed by history, clinical examinations and relevant investigations. After collecting data, editing was done manually and was analyzed with the help of SPSS.

RESULTS

The study revealed that out of 110 married female patients 60% were below the age of 30 years. Majority of the patients were housewives (93.6%) and educational status were up to primary level (51.8%). Psychiatric disorders were present in 87.3% and absent in 12.7%, where as medical disorders were present in 33.6% and absent in 66.4% of female patients having husbands working abroad. The commonest psychiatric disorder in these patients was conversion disorder (32.7%), followed by major depressive disorder (20%), generalized anxiety disorder (17.3%), other somatoform disorder (7.3%), schizophrenia (4.6%), bipolar mood disorder (3.6%), and panic disorder (1.8%). The common medical disorder in the patients were non ulcer dyspepsia (7.3%), peptic ulcer disease

(6.4%), respiratory tract infection (5.4%), urinary tract infection (5.4%), migraine (4.6%), diabetes mellitus (2.7%) and hypertension (1.8%).

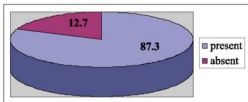


Figure-1: Distribution of the respondents on psychiatric disorders (n=110).

Table-I: Distribution of respondent on specific psychiatric disorders (n=110).

Psychiatric disorders	Frequency	Percentage
Conversion disorder	36	32.7
Major depressive disorder	22	20
Generalized anxiety disorder	19	17.3
Other somatoform disorder	8	7.3
Schizophrenia	5	4.6
Bipolar mood disorder	4	3.6
Panic disorder	2	1.8
No disorder	14	12.7
Total	110	100

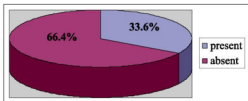


Figure-2: Distribution of the respondents on medical disorders (n=110).

Table-II: Distribution of respondent on specific medical disorders (n=110).

Medical disorders	Frequency	Percentage
Non ulcer dyspepsia	8	7.3
Peptic ulcer disease	7	6.4
Respiratory tract infection	6	5.4
Urinary tract infection	6	5.4
Migraine	5	4.6
Diabetes mellitus	3	2.7
Hypertension	2	1.8
No disorder	73	66.4
Total	110	100

Table-III: Distribution of respondents by socio-demographic characteristics (n=110).

Characteristics	Number (%)
Age (Years)	
Up to 20	6 (5.5)
21-30	60 (54.5)
31-40	38 (34.5)
More than 40	6 (5.5)
Religion	
Islam	89 (80.9)
Hinduism	21 (19.1)
Occupation	
House wife	103 (93.6)
Service	3 (2.8)
Student	4 (3.6)
Education	
Illiterate	12 (10.9)
Up to Primary	57 (51.8)
Up to SSC	32 (29.1)
Up to HSC	8 (7.3)
Graduate and above	1 (0.9)
Socioeconomic status	
High	7 (6.4)
Middle	50 (45.4)
Low	53 (48.2)
Type of family	
Joint	84 (76.4)
Nuclear	26 (23.6)

DISCUSSION

In this study our observation of age below 30 years was of great concern (60%). This result is similar to the study of Yengkokpam et al¹¹. They found that 68.8% patients were below 30 years of age. A female usually needs supports from her husband in this age group. House wife preponderance may be just a reflection of the socioeconomic culture of a specific area. Male persons usually move to abroad for earning. They send money to their family for running household activities, perhaps over a period of years together leaving wife at home. The disorder wise distribution in this study was consistent with the study of Yengkokpam et al out of total 80 patients 63 cases were of neurotic disorders and 17 cases were suffering from psychotic disorders¹¹. Chakraborty, on the basis of a field study conducted in Kolkata, also found higher rate of neuroses in women than men whereas widowed had higher rates of illness¹². Zachariah and Irudaya Rajan reported in their study that loneliness was the top most stress factor for gulf wives whose husbands were away¹⁴. Exclusive

responsibility for decision making, undue control of in-laws, having too many responsibilities to shoulder, absence of an adult male at home, separation from parents and envy of others were all viewed as stress factors by women of migrant households^{13,14}. In present study, the factors favored neurotic disorder may be psychological and physical insecurity of female patients in absence of their husbands. They had also constricted relationship with the members of in laws house where most of the family structure were joint in nature. They were restricted by the elder members of in laws house and on other hand their children can't oblige them. They can't express their emotion which remain covert and cause psychological conflict. The present study also showed that 6.4% of the respondents were from high socioeconomic status whereas 45.4% from middle socioeconomic status and 48.2% from low socioeconomic status. In this regard Yengkokpam et al mentioned that among the women from high socioeconomic status, social conditions were identified as a significant factor causing depression¹¹. Social relations, specifically relationship problems with husband, were the major factors for depression among women belonging to the low socioeconomic status. Other results of this study also correlates well with other published studies^{4,6,8,9,15}.

CONCLUSION

The high proportion of psychiatric disorders among the female patients whose husbands were working abroad is a great concern. The considerable unrecognized psychopathology in this population highlights the importance of mental health care for this group of female.

Limitation of the study:

- Small number of patients.
- It was an observational study and there was no control group.
- The entire sample was taken from hospital setting.
- Tertiary hospital based study may not represent the actual situation of the community.

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Original Article

Comparison between Intramedullary Interlocking Nailing and Dynamic Compression Plating in Closed Tibial Shaft Fracture

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ABSTRACT

This prospective, comparative study was conducted in the Department of Orthopaedics, Sylhet MAG Osmani Medical College Hospital, Sylhet, during the period from January 2009 to December 2010 with a view to find out the outcome and to compare between open intramedullary interlocking nailing (IML) and dynamic compression plating (DCP) in the management of closed tibial shaft fracture. For this purpose 30 patients with closed tibial shaft fracture were selected and were equally randomized into the interlocking group [14 male, 1 female; mean age 33.9 (SD±8.8) years] and plating group [12 male, 3 female; mean age 31.3 (SD±8.3) years]. Both groups were similar in age and sex ($p=0.412$ and $p=0.598$ respectively). The duration of total operation time was less [58.4 (SD±9) vs 91.1 (SD±8.1) minutes; $p<0.001$] and time of union was earlier [15.9 (SD±5.7) vs 22.5 (SD±5.1) weeks; $p=0.003$] in plating group than that of interlocking group. Total post operative complications were almost similar in interlocking and plating groups [8 (53.3%) vs 7 (46.7%); $p=0.715$] and duration of hospital stay was also similar (6.2±1 days vs 6.9±2 days; $p=0.252$). Functional outcome was excellent [7 (46.7%) vs 8 (53.3%)]; good [3 (20%) vs 4 (26.7%)], fair [2 (13.3%) vs 1 (6.7%)]; and poor [3 (13.3%) vs 2 (13.3%)] respectively in interlocking and plating groups ($p>0.05$). The final outcome was satisfactory in 10 (66.7%) and unsatisfactory in 5 (33.3%) patients in interlocking group; while satisfactory in 12 (80%) and unsatisfactory in 3 (20%) patients in plating group ($p>0.05$).

Key words: Fractures, Outcome, IML, DCP.

[Jalalabad Med J 2013; 10(1): 22-27]

INTRODUCTION

Fractures of the shaft of the tibia cannot be treated following a simple set of rules. Because of its location, tibia is exposed to frequent injury. One-third of the tibial surface is subcutaneous throughout most of its length. The blood supply to the tibia is more precarious than that of bones enclosed by heavy muscles¹.

The treatment of tibial shaft fractures of all forms has been fraught with complications. Delayed union, nonunion and infection are relatively common complications of tibial shaft fractures¹. It has also been demonstrated that the combined prevalence of nonunion was lowest but the prevalence of infection was greatest with operative treatment².

Plating of tibial shaft fractures by dynamic compression plate (DCP) is a viable surgical option and was once the treatment of choice. The procedure involves using a large surgical incision, reducing the

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fracture, placing a metal plate over the fracture and fixing the plate onto the bone with multiple screws. Because of the extensive soft-tissue manipulation required, plating damages the local vascular supply.

The osteosynthesis of a tibial diaphyseal fracture with a locked intramedullary nail is recommended by various authors due to high union rates, low infection and deformity rates and good functional results^{3,4,5}. Thus the treatment of choice for the large majority of displaced tibial shaft fractures is operative, such as intramedullary interlocking nailing (IMIL) and dynamic compression plating⁶. Some studies have successfully demonstrated that interlocking nailing could be used in treating fractures of the tibia^{2,7,8}.

Several studies had been performed in National Institute of Traumatology and Orthopaedic Rehabilitation (NITOR), Dhaka and Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, on intramedullary interlocking nailing in the fixation of open and closed fracture shaft of tibia^{9,10,11} but comparative outcome of intramedullary interlocking nailing and dynamic compression plate fixation in closed fracture shaft of tibia is yet to be properly evaluated. So, this study was designed to compare the outcome of intramedullary interlocking nailing and dynamic compression plating in closed tibial shaft fractures.

MATERIALS AND METHODS

This prospective, interventional and comparative study was based on simple random sampling conducted in the Department of Orthopedics, Sylhet MAG Osmani Medical College Hospital, Sylhet, during the period from January 2009 to December 2010 with a view to find out the differences of the outcome between open intramedullary interlocking nailing and dynamic compression plating in the management of closed tibial shaft fracture. For this purpose 30 patients with fracture shaft of the tibia were selected. Inclusion criteria were, closed unilateral displaced fracture of the shaft of the tibia of less than 14 days, tibial fractures at least 5 cm distant from the tibial plafond and knee and age between 18 to 50 years. They were divided randomly.

Each patient was given spinal anaesthesia. Tourniquete had been used in each patient. In plating group, open reduction was done through anterolateral incision and in nailing group, anterolateral incision as well as medial parapatellar incision was given for open reduction. After operation a long leg back slab was applied and kept for 4 weeks in each patient. The operated limb was kept partially elevated with a pillow.

Drain was removed on the second postoperative day (POD), static quadriceps exercise was begun as soon as pain subsided. The patient was allowed to toe touch walking with double crutches after two weeks. Stitches were removed on 10-14th POD.

Follow up:

Patients were followed up in the outpatient department (OPD), Sylhet MAG Osmani Medical College Hospital at 2 weeks, 4 weeks, 8 weeks, 12 weeks and every 3 months thereafter until union was complete. Each patient was evaluated clinically and radiologically.



Figure-1: Preoperative X-ray showing fracture of shaft of tibia.



Figure-2: Postoperative X-ray showing proximal screw (IMIL).

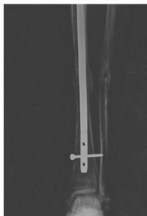


Figure-3: Postoperative X-ray showing distal screw and fracture union (IMIL).



Figure-4: Preoperative X-ray.

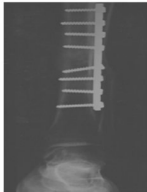


Figure-5: Postoperative X-ray at 16th week A/P view showing union (DCP).



Figure-6: Postoperative X-ray at 16th week, lateral view showing union (DCP).

Functional assessment:

The functional ability in the form of pain on full weight bearing and kneeling, range of movement of the knee and ankle, amount of shortening of the limb, alignment or angular deformity of fracture site at healing, fracture healing without infection was expressed as excellent, good, fair and poor according to the criteria followed by Gustilo¹².

Data were processed and analyzed with SPSS 16 version. Data were presented as mean, standard deviation, frequency and percentage and comparison was done between two groups by unpaired t-test, chi-square test or Fisher's exact test as required.

RESULTS

The interlocking group [14 male, 1 female; mean age 33.9 (SD±8.8) years] and plating group [12 male, 3 female; mean age 31.3 (SD±8.3) years] were similar in age and sex ($p=0.412$ and $p=0.598$ respectively) (Table-I). The duration of total operation time was less [58.4 (SD±9) vs 91.1 (SD±8.1) minutes; $p<0.001$] and time of union was earlier [15.9 (SD±5.7) vs 22.5 (SD±5.1) weeks; $p=0.003$] in plating group than that of interlocking group (Table-II). Total post operative complications were almost similar in interlocking and plating groups [8 (53.3%) vs 7 (46.7%); $p=0.715$] and duration of hospital stay was also similar (6.2 ± 1 days vs 6.9 ± 2 days; $p=0.252$) (Table-II). Functional outcome was excellent [7 (46.7%) vs 8 (53.3%)] good [3 (20%) vs 4 (26.7%)], fair [2 (13.3%) vs 1 (6.7%)] and poor [3 (13.3%) vs 2 (13.3%)] respectively in interlocking and plating groups ($p<0.05$). The final outcome was satisfactory in 10 (66.7%) and unsatisfactory in 5 (33.3%) patients in interlocking group; while satisfactory in 12 (80%) and unsatisfactory in 3 (20%) patients in plating group ($p<0.05$).

Table-I: Baseline characteristics of respondents.

Variables	IMIL (n=15)	DCP (n=15)	Total (n=30)	p-value
Age mean (SD) years	33.9 (\pm 8.8)	31.3 (\pm 8.3)	32.6 \pm 8.5	0.412*
Age group				
18-30 years	6 (40)	8 (53.3)	14 (46.7)	
31-40 years	5 (33.3)	6 (40)	11 (36.7)	0.40†
41-50 years	4 (26.7)	1 (6.7)	5 (16.7)	
Sex				
Male	14 (93.3)	12 (80)	26 (86.7)	0.598†
Female	1 (6.7)	3 (20)	4 (13.3)	
Cause of injury				
RTA	11 (73.3)	11 (73.3)	22 (73.3)	
Sports injury	0 (00)	1 (6.7)	1 (3.3)	
Assault	2 (13.3)	0 (00)	2 (6.7)	0.340†
Occupational injury	1 (6.7)	3 (20)	4 (13.3)	
Fall from height	1 (6.7)	0 (00)	1 (3.3)	
Level of fracture				
Proximal third	0 (00)	3 (20)	3 (10)	
Middle third	8 (53.3)	8 (53.3)	16 (53.3)	0.198†
Distal third	7 (46.7)	4 (26.7)	11 (36.7)	
Pattern of fracture				
Spiral	5 (33.3)	1 (6.7)	6 (20)	
Oblique	3 (20)	5 (33.3)	8 (36.7)	0.163†
Transverse	6 (40)	9 (60)	15 (50)	
Segmental	1 (6.7)	0 (00)	1 (3.3)	

Table-II: Outcome of the patients (n=30).

Variables	IMIL (n=15)	DCP (n=15)	p-value
Operation time (mins)	91.1 (\pm SD 8.1)	58.4 (\pm SD 9)	*p<0.001
Time of union (weeks)	22.5 (\pm SD 5.1)	15.9 (\pm SD 5.7)	*p=0.003
Types of complications			
Knee pain	5 (33.3)	2 (13.3)	†p=0.390
Subcutaneous tissue infection	1 (6.7)	2 (13.3)	†p=1.000
Deep infection	3 (20)	2 (13.3)	†p=1.000
Flexion deficit knee <20°	2 (13.3)	1 (6.7)	†p=1.000
Flexion deficit knee >20°	2 (13.3)	1 (6.7)	†p=1.000
Flexion deficit ankle <10°	1 (6.7)	2 (13.3)	†p=1.000
Flexion deficit ankle >10°	1 (6.7)	2 (13.3)	†p=1.000
Delayed union	0 (00)	1 (6.7)	†p=1.000
Total	8 (53.3)	7 (46.7)	*p=0.715
Functional outcome			
Excellent	7 (46.7)	8 (53.3)	
Good	3 (20)	4 (26.7)	
Fair	2 (13.3)	1 (6.7)	*p>0.05
Poor	3 (20)	2 (13.3)	
Final outcome			
Satisfactory	10 (66.7)	12 (80)	p=0.682
Unsatisfactory	5 (33.3)	3 (20)	

Figure in the parenthesis (for both the tables) indicates corresponding percentage in categorical variable and quantitative variable was expressed as mean (\pm Standard deviation).

*Unpaired 't' test and †Fisher's exact test were employed to analyze the data.

DISCUSSION

A variety of treatments have been used, including plating, intramedullary (IM) nailing and external fixation in the treatment of tibial fracture. Plate fixation achieves good reduction and rigid fixation and had been widely used in the past, but it requires extensive wound exposure and soft tissue dissection. Locked IM nailing is now widely accepted as a satisfactory method of all long-bone fractures including tibial diaphyseal fractures; due to the high union rates, low infection and deformity rates and good functional results¹³.

In this study the age of patients of fracture shaft of the tibia ranged from 20 to 50 years with the mean age of 32.6 (\pm SD 8.5) years. The mean age of patients in IMIL group was 33.9 (\pm SD 8.8) years and in DCP group was 31.3 (\pm SD 8.3) years ($p=0.412$). This result was supported by other studies^{3,9,14,15,16}.

The current study showed that 86.7% of patients were male and 13.3% of patients were female. This result was almost similar to other studies^{7,9,17,18,19,20}. Male being the major working group in our society and thus are more consistently exposed to the external environment that may be the cause of male predominance.

In the current study, the duration of total operation time was less in plating group than that of interlocking group [91.1 (SD \pm 8.1) minutes vs 58.4 (SD \pm 9) minutes; $p<0.001$]. In this regard Janssen et al²¹ found that operative management with IM nailing took a mean time of 123 min (range 75-195) and operative management with open reduction internal fixation took a mean total operation time of 107 min (range 60-195; $p=0.072$).

In this study, the time of union required for plating group was also earlier than that of interlocking group [15.9 (\pm SD 5.7) weeks vs 22.5 (\pm SD 5.1) weeks; $p=0.003$] which was in agreement with some^{21,22,23}, but differed from others^{8,13,24}.

The present study showed that total post operative complications were almost similar in both groups [8 (53.3%) vs 7 (46.7%); $p=0.715$]. Gudmundsson and Yllo²⁴ found non union in 8.7% of patients with fractured shaft of the tibia treated with DCP.

Functional outcome was excellent 7 (46.7%) vs 8 (53.3%); good 3 (20%) vs 4 (26.7%), fair 2 (13.3%) vs 1 (6.7%); and poor 3 (13.3%) vs 2 (13.3%) patients in IMIL group and DCP group respectively ($p=1.000$). In this regards Mertens et al²⁵ found excellent result in 55% and a good result in 44% patients with fracture shaft of tibia treated with IMIL. Yang et al¹³ found excellent outcome in 35.7%, good in 42.9% and fair in

21.4% patients with fracture shaft of tibia treated with DCP.

In this study, the final outcome was satisfactory in 66.7% and unsatisfactory in 33.3% patients in IMIL group; whereas in the DCP group, final outcome was satisfactory in 80% and unsatisfactory in 20% patients ($p=1.000$). In this regard Alam⁹ and Al-Mahmud¹¹ found satisfactory result in 83.3% and unsatisfactory in 16.7% among their patients treated with IMIL. Chand¹⁰ found satisfactory results in 82.3% and unsatisfactory results in 17.6% patients with closed tibial fractures treated with IMIL. Batten et al²⁶ reported an excellent or good functional outcome in 93% and Rommens et al²⁷ found good result in 88.1% patients with tibial fractures treated with dynamic compression plate.

CONCLUSION

It is concluded that patients requiring management of closed fracture shaft of the tibia, open intramedullary interlocking nailing and dynamic compression plating are equally effective for achieving satisfactory union, functional outcome and final outcome. Further study involving a large sample size should be conducted to evaluate the intramedullary interlocking nailing and dynamic compression plate fixation in the management of fracture shaft of the tibia to provide a better conclusion.

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Review Article

Knowlesi Malaria: A Message to the Physicians

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ABSTRACT

Traditionally a simian parasite affecting the macaque monkeys, the *Plasmodium knowlesi* now has already established its name as the fifth human malarial parasite. Reports of human infections are coming from all over the world, especially the South and South-East Asian countries. In its severe form, this organism causes deadly disease as many literatures have described. Although it is yet to be reported in Bangladesh, recently knowlesi malaria infected cases were found in the Rakhain district of Myanmar, which is not far from the Bangladesh border. Despite Bangladesh being one of the countries having the highest prevalence of malaria, in general, our diagnostic approaches to malaria are still in their infancies. Poor economy has harnessed our physicians from implementing whatever diagnostic tools are available to them. There is a popularity of empiric therapy over diagnosis, considering the cost of diagnosis. May be, our knowledge on malaria in Bangladesh is, in all, just the tip of the iceberg.

Key words: Knowlesi malaria, *Plasmodium*, Macaque monkey.

[Jalalabad Med J 2013; 10(1): 28-31]

INTRODUCTION

For the past 80 years, human malaria has been known to be caused by four plasmodium species: *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale* and *Plasmodium malariae*, with *P. falciparum* being responsible for the most severe cases. Recently, a fifth plasmodium species has been recognized as a cause of malaria in humans. The newcomer is *Plasmodium knowlesi*, which was formerly known to cause malaria only in macaque monkeys¹.

In the year 2004, a stunning information stirred the researchers when molecular detection methods for malaria conducted on 201 patients in the Kapit division of Sarawak, Malaysia revealed that 58% of the patients were infected with the simian parasite, *Plasmodium knowlesi*². Since then, reports of infected cases are

coming from all the neighboring countries including India, Myanmar, Thailand, Singapore, Indonesia, Vietnam and Philippines³. In Bangladesh, where virtually all malarial infections are attributed due to either *P. falciparum* or *P. vivax*, the time has come to put an end to our patterned thinking.

HISTORY

Plasmodium knowlesi was first isolated from a long tailed macaque monkey (*Macaca fascicularis*) imported to India from Singapore⁴. Knowles and Das Gupta demonstrated the 24 hours erythrocytic cycle of *P. knowlesi* to be the shortest among primate malariae. Therefore, the parasite replaced *P. vivax* as a pyretic agent in the treatment of neurosyphilis, until the mid 1950s when penicillin became the treatment of choice⁵. The first natural human infection by mosquito bite was reported in an American army surveyor returning from peninsular Malaysia¹. In 1971, another natural infection was suspected in peninsular Malaysia⁶. No additional reports appeared until 2004, when Singh et

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al described 120 cases of naturally acquired *P. knowlesi* infection in humans in Malaysian Borneo².

DISTRIBUTION

Plasmodium knowlesi is normally considered a parasite of the long tailed (*Macaca fascicularis*) and pig tailed (*Macaca nemestrina*) macaques. Transmission to human (from macaques or other infected human) occurs through mosquitoes of *Anopheles leucosphyrus* group (*Anopheles hackeri*, *A. latens*, *A. carrens*)⁷. Mosquitoes of this group are typically found in the forests of Southeast and South Asia, including the Chittagong hill tracts of Bangladesh⁸. They are known to be forest feeders, biting both humans and macaques at evening or during the night³. With increasing deforestation and development ventures, many macaques are coming in close contact with human. Hence, more and more people who live in the semi-urban areas are being found to be infected with *knowlesi* malaria⁹.

Several macaque species including *Macaca fascicularis*, the traditional hosts for *P. knowlesi* have their habitats in Bangladesh and are known to be endemic in the southeastern parts of the country. The limited distribution of mosquitoes of the *A. leucosphyrus* group, the only known vector of *P. knowlesi* restricts the current distribution of *knowlesi* malaria to a limited area in Southeast and South Asia, perhaps including the Chittagong Hill Tracts of Bangladesh⁸.

CLINICAL FEATURES

Plasmodium knowlesi parasites replicate and complete their blood stages in human in 24 hours cycle, compared to the 72 hours cycle of *P. malariae* and 48 hours cycle of *P. falciparum* and *P. vivax*. Hence, it is also called quotidian malaria^{2,9}. This shortest erythrocytic cycle plus invasion of all generations of red cells from reticulocytes to mature RBCs, enables it to cause a high parasite density in a very short period of time, making it a potentially very severe disease if it remains untreated⁹.

Symptoms typically begin approximately 11 days after an infected mosquito has bitten a person and the parasites can be seen in the blood between 10-12 days after infection. Symptoms include headache, fever, chills and cold sweats⁹. One study conducted in the Kapit hospital, Sarawak, Malaysia reported symptoms to be occurring in the following frequencies: fever (100%), headache (94%), rigors (89%), malaise (89%), myalgia (87%), cough (56%), abdominal pain (52%), diarrhoea (29%), palpable liver (24%) and palpable

spleen (15%). Signs of severe illness like low PO₂, tachypnea, chest crackles, shock, renal failure and jaundice were found in some cases but, cerebral malaria like syndrome was not reported^{1,2}. Asymptomatic infections may also occur¹⁰.

Thrombocytopenia was a striking feature as 98% of the *knowlesi* malaria patients included in that study presented with thrombocytopenia and 100% of them became thrombocytopenic within 24 hours of admission². This feature was also observed in *falciparum* and *vivax* malaria, although at a much lower frequencies. The author suggested that this should be used as a red flag to ensure that patients with thrombocytopenia are tested for malaria². Other haematological abnormalities reported were anaemia and lymphopenia. There was also a tendency to renal failure requiring careful fluid resuscitation.

Complications include ARDS, hypotension, shock, hypoglycaemia, metabolic acidosis, hyponatremia, transaminitis and algid malaria. Gram negative bacteremia (eg. *P. knowlesi* associated sepsis) has also been reported as a fatal complication¹¹. Hyperparasitaemia is a strong predictor that the patients may have these complications^{1,2,9}.

DIAGNOSIS

Routine diagnosis of malaria involves identification of the various blood stages of the parasite by microscopic examination of Giemsa stained blood films. However, microscopic approach has an intricate drawback, as the early trophozoite stages of *P. knowlesi* are microscopically identical to the ring-forms of *P. falciparum* and the later stages (late trophozoites, schizonts and gametocytes) are similar to the band-forms of *P. malariae*^{2,7,9}. These similarities were noted by earlier workers^{4,12}. So, PCR based assays like, Nested PCR assay¹³, LAMP (Loop mediated isothermal amplification) assay¹⁴ and real time PCR¹⁵ were used for correct identification. But, these sophisticated methods are not utilizable in resource poor countries like Bangladesh. Rapid diagnostic tests (RDTs) are several commercially available test kits that aid in the diagnosis of malaria (eg. pGluDh, Histidine rich protein II, pLDH and pAldo). Unfortunately, there are no such rapid diagnostic tests yet developed for *P. knowlesi*^{2,9}.

In *P. malariae* infection, the parasitemia seldom exceeds 5000 parasites per microliter of blood. Therefore, if PCR assays are not available, a *P. knowlesi* infection should strongly be suspected if the patient presents with daily fever spikes, microscopy suggests *P. malariae* infection with a parasitemia

greater than 5000 parasites per microliter of blood and there is a recent history of travel to the forest or forest fringe of the Southeast Asian countries^{2,7}.

TREATMENT

P. knowlesi itself appears to be susceptible to numerous antimalarial drugs. The majority of the Malaysian patients were primarily treated with chloroquine, whereas quinine plus doxycycline, mefloquine, atovaquone plus proguanil were successfully used in Finland, Sweden and USA. It suggests that *P. knowlesi* malaria can be treated with all of these agents¹. An observational study conducted at the Kapit hospital, Malaysia, showed favorable treatment outcome with a total dose of 25 mg/kg of chloroquine, administered as 10 mg/kg, followed by 5 mg/kg at 6, 24 and 48 hours¹⁶. However, if the parasitaemia is very high and patient is toxic, then it should be treated like severe *P. falciparum* malaria^{1,9}.

A hypnozoite stage does not occur in this malaria. So, relapse is not a possibility and therefore, primaquine administration is not required^{1,9}.

CONCLUSION

In Bangladesh, among microscopy confirmed malaria infections, *P. falciparum* was the dominant species (70%), followed by *P. vivax* (29%) and *P. malariae* (1%)⁸. But, the actual picture may be hidden, as routine microscopy is not in widespread use and sophisticated methods like PCR are rarely used. Although we do not have data to confirm the presence of *P. knowlesi* in Bangladesh, our knowledge of the reservoir, vectors and ecology of this parasite indicates that southeastern Bangladesh may be an ideal eco-pattern where *P. knowlesi* is likely to be found⁸. The 24 hours asexual life cycle of *P. knowlesi* giving rise to daily schizont rupture with attendant fever spikes and a rapid increase in parasite load, is unprecedented in human malaria and even a short delay in diagnosis can increase the risk of complications. The authors do not predict any impending doom created by *P. knowlesi* in Bangladesh, rather, the objective of this article is merely to create an awareness of this infection among the physicians; so that a rare but important diagnosis is not missed in our day to day practice.

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Case Report**Rhinolithiasis: A Case Report of Large Rhinolith****Hritu Raj Deb¹, SM Mahede Hasan², SA Hoque³, Syed Khurrom Ahmed⁴, Md Mofakkarul Islam⁵, Hasan Tareq Bin Noor⁶, Amzad Hossain⁷, Zakir Hossain Chowdhury⁸, Furuja Akhtar⁹**¹Assistant Professor, Department of Otolaryngology, Jalalabad Ragib-Rabeya Medical College, Sylhet.²Assistant Registrar, Department of Otolaryngology, Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet.³Associate Professor, Department of Otolaryngology, Jalalabad Ragib-Rabeya Medical College, Sylhet.⁴Assistant Professor, Department of Anesthesiology, Jalalabad Ragib-Rabeya Medical College, Sylhet.⁵Consultant, Department of Otolaryngology, Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet.^{6,8}Medical Officer, Department of Otolaryngology, Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet.^{7,9}Indoor Medical Officer, Department of Otolaryngology, Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet.**ABSTRACT**

Rhinoliths are foreign bodies in the nose, which may be encountered during the course of a routine examination. If undetected for a long period, they may grow large enough to cause symptoms of nasal obstruction, mimicking sinusitis. We report a patient with rhinolith presenting with diverse clinical findings. Removal was a bit difficult but uneventful in our case.

Key words: *Rhinolith, Nasal obstruction, Foreign body.***[Jalalabad Med J 2013; 10(1): 32-34]****INTRODUCTION**

Rhinolith is a calcified concretion of a nidus within the nasal cavity. They are not commonly seen but attract attention because they can be confused with both benign and malignant nasal tumors which need aggressive surgical management. Rhinoliths are uncommon foreign bodies of the nose, which may be encountered incidentally during the course of a routine examination¹. Their formation is caused by in situ calcification of intranasal endogenous or exogenous foreign material². Rhinoliths are usually found on the floor of the nasal cavity, about halfway between the anterior and posterior nares³.

Rhinolithiasis is often an asymptomatic condition, which may remain undetected for many years⁴, until the rhinoliths grow large enough to cause symptoms of nasal obstruction and discharge, leading the physician

to the erroneous diagnosis of rhinitis or unresolved sinus infection⁵. They remain an uncommon condition in routine clinical practice and may escape attention since they are frequently poorly visualized during rhinoscopy. It is therefore important for the practicing rhinologist to be aware of their existence and appearance, so that they are not misdiagnosed for tumors or other pathologic entities^{6,7}.



Figure-1: CT scan, axial section showing a large rhinolith with mild displacement of the nasal septum to the left.

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CASE REPORT

A 70 years old female presented on 8th June, 2012 to the Department of Otolaryngology and Head Neck Surgery of Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet with the complaints of unilateral nasal obstruction and frequent episodes of epistaxis for five years. This patient had neither history of trauma nor insertion of any foreign body into nose. The anterior rhinoscopy revealed complete occlusion of the right nasal cavity by a mass. The mass was of crumbly texture and displaced the nasal septum to the contra lateral nasal cavity. Simultaneously there was mild swelling of the right cheek. CT scan of nose and para nasal sinuses (PNS) showed a lesion in right nasal cavity with central calcification with peripheral enhancement which pushed the nasal septum to the contra lateral side. The para nasal sinuses were clear, osteomeatal complex were functioning. So the patient was diagnosed as rhinolith in right nasal cavity.

The patient underwent surgery where the rhinolith was removed intranasally under general anesthesia. Epistaxis was controlled by anterior nasal pack which was removed after 24 hours. The patient's post operative recovery was uneventful and regular follow-up up to one year was satisfactory without any recurrence.



Figure-2: CT scan, coronal cut view showing functioning osteomeatal complex.

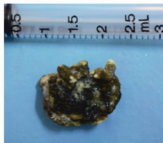


Figure-3: Rhinolith after complete intranasal removal

DISCUSSION

The incidence of rhinolithiasis reported in the literature is relatively rare. The most extensive study is of Polson et al in 1943⁸, in which 495 cases were reviewed, most of the cases were female and age of onset ranged from 6 months to 86 years. Although rhinoliths can occur at any age, they are more common in children and young adults⁹.

The mechanism of creation is believed to be, by deposition of magnesium, iron, calcium and phosphorus around a core, which can be endogenous or exogenous in origin^{10,11}. The intrinsic nuclei include intranasal thick secretions, blood clots, epithelial debris, bone fractures of the visceral skull and ectopic teeth¹. Exogenous nuclei, which are the most common, include foreign bodies placed in the nose, usually during childhood. The presence of foreign body leads to a local inflammatory reaction and subsequent deposition of salts and minerals around the core¹². Other factors that appear to play role in the formation of rhinoliths are nasal obstruction and nasal secretions due to acute and chronic rhinosinusitis¹³.

As the size of rhinoliths increase very slowly and they are relatively inert, they are initially symptomless or cause minor symptoms⁴. If they become large enough, they cause symptoms of nasal obstruction or chronic nasal discharge. Occasionally patients may complain of symptoms associated with local tissue distortion or destruction such as facial pain, swelling or epistaxis. Rhinoliths may be found incidentally either on X-ray or on routine intranasal inspection.

The clinical approach should include anterior rhinoscopy, nasal endoscopy and CT scan. The CT scan provides accurate details for the location, size and extension of the rhinolith and many other local diseases that need treatment¹⁴. The differential diagnosis includes granulomatous diseases, bone remodeling after osteomyelitis, osteomas, calcified odontogenic polyps and cysts, osteosarcoma, odontoma and other rare malignant tumors¹⁵.

Several complications have been occasionally described such as septal deviation⁹, septal perforation⁵, bony destruction and expansion of the calculus to involve the maxillary sinus¹², oroantral and oronasal fistula^{16,17}. A case of meningitis has also been described¹¹.

The treatment of the disease involves complete removal of the rhinolith, but the surgical approach depends on the location, size, and presence of local complications. In the majority of cases, as mentioned in the reported case, the removal was conducted intranasally, either en block or in pieces after crushing.

An alternative method of removal following lithotripsy is also reported¹². When the location of the rhinolith is in the posterior half of the nasal cavity, it can be promoted through the nasopharynx to the oral cavity and be removed transorally, if the size and the shape of the rhinolith allows such an approach. Endoscopic approaches can be performed in cases of small rhinoliths without complications¹⁸. Simultaneously with the removal, a septoplasty of the nasal septum can be performed.

CONCLUSION

Although rhinoliths are quite uncommon, it is quite probable that an otolaryngologist will occasionally be confronted with such cases during his practice. Since clinical and radiological findings may be similar to other benign or malignant nasal lesions, knowledge of this clinical entity and a high degree of suspicion are necessary in order to accurately diagnose and treat this condition.

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Case Report

Immune Thrombocytopenic Purpura in Pregnancy: A Case Report

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ABSTRACT

Thrombocytopenia in pregnancy has many common causes including, gestational thrombocytopenia, pre-eclampsia, HELLP (Haemolytic anaemia, elevated liver enzyme, low platelet count) syndrome, thrombotic thrombocytopenic purpura (TTP), disseminated intravascular coagulation (DIC), antiphospholipid syndrome, folate deficiency, viral aetiology (Dengue, HIV, HCV), drug (Quinine, sulphonamide, heparin) related haemolytic uremic syndrome. The great concern for ITP during pregnancy is the risk of thrombocytopenia in the newborn infant. A 29 years old 3rd gravida female who delivered two children earlier by normal vaginal delivery was admitted in Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet. Her complaints were, 36 weeks of pregnancy with early rupture of membrane with premature labour pain with ITP. She had been suffering from ITP for last 8 years. This pregnancy was as a result of contraceptive failure. After admission she was treated with injectable methyl prednisolone, fresh blood and fresh frozen plasma transfusion. Her labour was augmented with oxytocin drip. She delivered a premature female baby without any signs or symptoms of ITP or purpura. Two hours after delivery she developed PPH, which was managed by transfusion of fresh blood, fresh frozen plasma & platelet concentrate transfusion. She was discharged on third postnatal day. The aim to report this case is to reveal pregnancy with ITP and its clinical presentation, investigation and management with review of relevant literatures.

Key words: Thrombocytopenia, ITP.

[Jalalabad Med J 2013; 10(1): 35-37]

INTRODUCTION

Auto immune thrombocytopenic purpura (AITP) or immune thrombocytopenic purpura (ITP) is a haematological disorder characterized by the destruction of platelets in the blood by anti-platelet antibodies. Purpura pertain to a bluish discoloration of the skin or mucous membrane caused by bleeding¹.

The reference range of a normal platelet count in non-pregnant women and newborn is 150,000-400,000/ μ L. Normal platelet life span is 7-10 days. Upto one-third of marrow output of platelet may be trapped at any one time in the normal spleen but may be raised to 90% in cases of massive splenomegaly². During pregnancy platelet count falls progressively but tends to remain

within the normal range. The incidence of thrombocytopenia is greatest in third trimester and this is because of haemodilution and platelet consumption by placenta and is considered normal, if there is no pathological condition accompanying the pregnancy¹.

Thrombocytopenia in pregnancy has many common cause including gestational thrombocytopenia, pre-eclampsia, HELLP syndrome, thrombotic thrombocytopenic purpura (TTP), disseminated intra vascular coagulation (DIC), anti phospholipid syndrome, folate deficiency, viral etiology (Dengue, HIV, HCV), drug (Heparin, quinine, sulphonamide) related haemolytic uremic syndrome¹. This article focuses on the gestational thrombocytopenia, immune thrombocytopenia and neo-natal alloimmune thrombocytopenia (NAIT) and its management during pregnancy.

These relatively rare causes of thrombocytopenia are important, as neonatal outcome can be significantly

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impaired and subsequent pregnancies can be affected³.

CASE REPORT

A 29 years old, 3rd gravida patient who had previous two pregnancies with normal vaginal delivery was admitted into Jalalabad Ragib-Rabeya Medical College Hospital, Sylhet in Obstetrics & Gynaecology department with the complaints of 36 weeks pregnancy with P/V watery discharge and lower abdominal pain for 3 hours with extensive purpuric spot over the whole body. The age of her last child was 10 years. After admission she was diagnosed as a case of 36 wks pregnancy with early rupture of membrane with premature labour pain with ITP. She had been suffering from ITP for 8 years (she was on oral contraceptive and this pregnancy was a result of contraceptive failure). During pregnancy she was on regular antenatal care and jointly monitored by obstetrician and haematologist. She was treated with prednisolone 20 mg bid and iron, vitamins and folic acid. She had history of platelet transfusion two times, 2 units each during her 28 weeks and 34 weeks of pregnancy, as platelet count became 35,000 & 20,000/ μ L respectively with purpuric spots. She had no history of thrombocytopenia, menorrhagia in previous pregnancy. Her haematological examination revealed, bleeding time 8.6 min and clotting time 4.5 min and total platelet count 35,000/ μ L of blood, her ANA antibody and anti-ds DNA were negative. Bone marrow study showed normal M:E ratio and dysmegakariopoiesis. Ultrasonography diagnosed her pregnancy at 11 weeks. She was duly immunized against tetanus. Her anomaly scan was done at 24 weeks of pregnancy and revealed no fetal anomaly. At 28 and 34 weeks after platelet transfusion her purpuric spot disappeared and repeat USG revealed no foetal abnormality.

At 36 weeks after admission in hospital she was treated with antibiotic, fresh blood transfusion and labour was augmentation by oxytocin drip. After 6 hrs of augmentation she delivered a premature female baby without any sign symptoms of ITP or purpura. Active management of 3rd stage done, uterus was contracted and no PPH. Two hours after delivery she developed post-partum bleeding without any atonicity or trauma to the genital tract. Then immediately she was arranged for fresh blood transfusion. Her PPH continued for 2 hours then gradually diminished. After delivery she was treated with 4 units of fresh human blood, 4 units platelet concentrate and 8 units fresh frozen plasma. She was also treated with intravenous antibiotic, intravenous methyl prednesolone followed by oral prednesolone 5 mg three times daily. After three days

of treatment her purpuric spots diminished and she was discharged with platelet count 1,70,000/ μ L of blood. Baby was nonicteric with good reflexes. Complete blood count showed no abnormalities.

Patient was advised for mirena (IUCD) as contraception.

DISCUSSION

Pregnant women with ITP can be asymptomatic or may present with a history of easy bruisability, bleeding into the mucous membranes (Epistaxis or gingival bleeding) or purpura^{5,6,7}. ITP occurs in all races⁸ and has a predisposition for female population of 18 and 40 years. The overall male female ratio is 1.7:1. Autoimmune thrombocytopenic purpura occurs in 1 to 2 per 1000 to 1 per 10000 pregnancies and many have menorrhagia, menometrorrhagia prior to pregnancy, history of delivery a term newborn with thrombocytopenia, visceral or intracranial haemorrhage or spontaneous prolonged bleeding after venepuncture⁶. Most women with ITP have normal findings on physical examination (Splenomegaly is absent) and purpura may be present specially in the lower limb^{6,9}.

ITP is a diagnosis of exclusion with peripheral thrombocytopenia and normal or increased megakaryocytes in the bone marrow, red and white cell count is normal^{3,4} unless there is secondary anaemia¹. There was no history of drug related gestational thrombocytopenia, preeclampsia in current pregnancy and other medical conditions that can cause thrombocytopenia⁶. Platelet count between 30 to 80 X 10⁹/L is suspicious for this disorder¹. Bone marrow aspiration demonstrates normal or increased number of megakaryocyte⁶. Antiplatelet antibody can be detected in the serum of patient with ITP¹.

A negative test does not exclude the diagnosis^{4,6,7,9}. Additionally, many women with gestational thrombocytopenia have high levels of circulating platelet associated immunoglobulin¹. Recommendations for modality of treatment for ITP in pregnancy are corticosteroids, intravenous immunoglobulin, platelet transfusion, splenectomy, intravenous anti D¹. If the foetal platelet count is less than 50,000/ μ L of blood caesarean section may be considered⁶.

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Miscellaneous

Campus News

Postgraduate Training Recognized by BCPS

A high powered inspection team consisted of eight members from Bangladesh College of Physicians and Surgeons (BCPS) Dhaka, headed by Professor Syed Mokarrom Ali, visited the Jalalabad Ragib-Rabeya Medical College and Hospital on 27-12-2010. On the recommendations of the inspection team, the Council of Bangladesh College of Physicians and Surgeons (BCPS) has renewed recognition to the departments of Paediatrics, Ophthalmology, Otolaryngology, Psychiatry, Pathology (Histopathology) and Orthopaedic Surgery for imparting training to the resident doctors provisionally for a period of five years with effect from 21-09-2009. The Council has granted recognition to the department of Paediatric Surgery for imparting training to the resident doctors provisionally for a period of five years with effect from 13-02-2010. The training will be accepted for appearing in the FCPS, MD, MS Part-II and diploma examinations in these specialties. The postgraduate training imparted from the departments of Surgery, Medicine and Obstetrics & Gynaecology were recognized by Bangladesh College of Physicians and Surgeons (BCPS) earlier in 2003 and Dermatology & Veneriology and Physical Medicine in 2008.

Visit By Honorable Ambassador of Nepal

Mr HK Shrestha Honorable Ambassador of Nepal to Bangladesh visited Jalalabad Ragib-Rabeya Medical College and Hospital on 17th November 2012. He was given a warm reception by the principal and other teachers of the institute. He met all the Nepali students (about 200) studying in this college and mentioned that they are lucky because they are getting their medical education in one of the best medical college of Bangladesh. He praised the principal and all other teachers of this college for lifting up the position of this college to this level and hoped that this will remain same in the future.

Approval of Budget of Taka 65 Crore for 2013

48st meeting of Governing Body for Jalalabad Ragib-Rabeya Medical College and Hospital was held in the college conference room on 22nd December 2012. The Governing Body anonymously approved the budget of Taka 64,70,99,546.00 for the year of 2013. The meeting was presided over by Founder of the College and Chairman of Governing Body Danobir Mr Ragib Ali. The Member Secretary and Principal of JRRMC, Maj Gen (Retd) Prof Md Nazmul Islam, Mr Abdul Hye, Senior Vice President of Ragib-Rabeya Foundation, and other members of the Governing Body were also present in the meeting.

Seminar

The following seminar held in Jalalabad Ragib-Rabeya Medical College (JRRMC) during January to June 2012: A seminar on "Depression: A Global Crisis" held on 11th October 2012 organized by the department of Psychiatry.



Instructions for Author(s)

Manuscripts on clinical, review, experimental and historical topics pertinent to medical sciences are accepted for the publication in this journal. The papers are accepted for the publication with an understanding that they are solely submitted for this journal. The statements, comments or opinions expressed in the papers are exclusively of author(s), not of editor(s) or publisher. The manuscripts are to be prepared as described in following instructions. 3 (three) hard copies are to be submitted. Letters about potentially acceptable manuscripts will be sent after review process is complete. No manuscripts will be returned if not accepted for publication. In addition an electronic/digital version of the manuscript composed in MS word 98/2000 should be submitted in a diskette.

Preparation of manuscripts

Manuscripts should be typewritten, double-spaced throughout (including references and tables) on one side of good quality A4 sized paper, with margins of at least 25 mm. Each component of the manuscript should begin on a new page in the sequence of title or cover page, abstract with key words, text, acknowledgement, references, tables and legends for illustrations.

Title page will contain

- Concise and informative title of the article
- Author(s) name, highest academic degree(s).
- Name of the department(s) and institution(s).
- Address for correspondence and reprint (please include e-mail address and fax if available)

Abstract and key words

An informative abstract not more than 250 words should briefly describe the objectives, materials and methods, results and conclusion. Number of key words should not more than ten and none that are in the title. Text should contain Introduction, Materials and Methods, Results and Discussion in sequence.

Introduction

It should briefly disclose the purpose of study. It will help the readers with the problem finding. It should be clear in nature and purpose.

Materials and Methods

Clearly it should include materials, experimental procedures, methods etc. Mention the nomenclature, source of material, equipment with manufacturer's

details in parentheses. Describe new methods in sufficient detail indicating their limitation. Established methods should be cited with authentic references. Ethical standards should be followed in reporting experiments done in human subjects. Precisely identify the dosage and route of administration, when drugs or chemicals are used. Measurements and data should be stated in SI unit, or if SI unit does not exist, use an internationally accepted unit. Abbreviations and acronyms should be used for widely used terms and names, which occurs consistently and frequently in the manuscript.

Results

It should be presented in logical sequence in text, tables or illustrations. Duplications of data in the tables or illustrations should be avoided. Emphasize or summarize only important observations.

Discussion

Emphasize the new and important aspects of the study and conclusion derived from them. Detail data written in introduction and other portions of text should not be repeated. The implication of results and their limitations including suggestion for future research should be included in the discussion.

References

Number the references consecutively in order mentioned in the text. Full list of reference should include all authors. Avoid using abstracts as references. References to paper accepted but not yet published should be designated as 'in press' or 'forthcoming'. Authors should obtain written permission to cite such papers as well as verification that they have been accepted for publication. Information from manuscripts submitted but not accepted should be cited as 'unpublished observations' with written permission from the source. Use the styles of example below, which are based on the formats used by US National Library of Medicine (NLM) in the Index Medicus. The title of journals should be abbreviated according to the style used in Index Medicus.

Article in journal

- List all six authors when six or less

Vega KJ, Pina I, Krevsky B. Heart transplantation in associated with an increased risk for pancreatobiliary

disease. *Ann Intern Med* 1996; 124 (11): 980-3.

As an option, if a journal carries continuous pagination throughout a volume (as many journals do) the month and issue number may be omitted.

b) More than six authors

Parkin DM, Clayton D, Black RJ, Masuyer E, Friedl HP, Ivanov E, et al. Childhood leukaemia in Europe after chernobyl: 5 year follow-up. *Br J Cancer* 1996; 73:1006-12.

c) No author given

Cancer in South Africa (editorial). *S Afr Med J* 1948; 84:15

d) Organization as author

The cardiac society of Australia and New Zealand. Clinical exercise stress testing. Safety and performance guidelines. *Med J Aust* 1990; 146: 267-9.

Books and monographs

a) Personal author(s)

Laurence DR, Bennett PN, Brown MJ. *Clinical Pharmacology*. 8th ed. New York: Churchill Livingstone; 1997.

b) Editor(s), compiler(s) as author

Norman IJ, Redfern SJ, editors. *Mental health care for elderly people*. 5th ed. New York: Churchill Livingstone; 1999.

c) Organization as author and publisher

World Health Organization. *Ethical criteria for medical drug promotion*. Geneva: World Health Organization; 1988.

d) Chapter in a book

Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, editors. *Hypertension: pathophysiology, diagnosis and management*. 2nd ed. New York: Raven Press; 1995. p 465-9.

e) Dissertation or thesis

Kaplan SJ. *Post hospital home health care: the elderly access and utilization (dissertation)*. St. Louis (MO): Washington Uni; 1995.

Other published material

a) Newspaper article

Lee G. Hospitalization tied to ozone pollution: study estimates 50,000 admissions annually. *The Washington Post* 1996; June 21; sect. A: 3 (col. 5).

b) Dictionary and similar references

Student's medical dictionary. 26th ed. Baltimore: Williams and Wilkins; 1995. p.119-20.

Unpublished material

a. In press

Leshner AI. Molecular mechanisms of cocaine addiction. *N Eng J Med* (in press) 1997.

Electronic material

a) Journal articles in electronic format

Morse SS. Factors in the emergence of infectious diseases. *Emerg Infect Dis* [serial online] 1995 Jan-Mar [cited 1996 June 5]; 1(1): [24 screens]. Available from: URL: <http://www.cdc.gov/ncidod/EID/eid.htm>

b) Monograph in electronic format

CDI, clinical dermatology illustrated [monograph on CD-ROM]. Reeves JRT, Maibach H. CMEA Multimedia group, producers. 2nd ed. Version 2.0. San Diego: CAEA; 1995.

C) Computer files

Haemodynamics III: The ups and downs of haemodynamics [computer program]. Version 2.2. Orlando (FL): Computerized Educational Systems; 1993.

Table(s)

Each table should be typed on a separate sheet, brief title for each and should be numbered consecutively using Roman numbers and be cited in the consecutive order. Internal horizontal and vertical lines should not be used.

Illustration(s)

(Figure(s), photograph(s) etc.)

Figure(s) should be clear and legible. Illustration will be modified or recreated to conform to journal style. Photographs and photomicrographs should be clear and large enough to remain legible after the figure has been reduced to fit the width of a single column. The back of each figure should include the sequence number and the proper orientation (e.g.top). All illustrations should be referred to as figures numbered consecutively in the text in Arabic numerical.

Acknowledgement should appear at the end of the manuscripts before references.

Review and action

Manuscripts are usually examined by the editorial staff and are sent to outside reviewers. Author's suggestion regarding the names of possible reviewers is encouraged, but editorial board reserves the right of final selection.

Submission

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Jalalabad Medical Journal (JMJ)

Jalalabad Ragib-Rabeya Medical College

Jalalabad Ragib-Rabeya Medical College Road,

Pathantula, Sylhet-3100

e-mail: jrmcjournal@gmail.com

Phone: 88-0821-719096

Fax: 88-0821-719096

Jalalabad Medical Journal ISSN 1818-1104

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Printed by : Rabeya Offset Printers & Rahib Computer, Modhuban 3rd floor, Sylhet. Ph. 714634, 722227