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## Journal of Diabetic Association Medical College, Faridpur (JDAMC)

Vol. 1, No. 1, January 2017

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# From the Desk of the Editor-in-Chief

#### Congratulations

All praises to the Almighty. It is a great pleasure that Diabetic Association Medical College, Faridpur is the first private medical college in the South part of Bangladesh, going to publish its first scientific journal. I solely praise our devoted researchers and doctors who contribute themselves to achieve this great task.

The aim of this journal is to enhance and upgrade the research work of our teachers in the field of medical science. It provides an integrative forum for medical researchers across the globe to exchange their knowledge and views. It also helps us to promote communication among fellow academicians and researchers worldwide. It provides an opportunity to academicians in exchanging their knowledge that is directly relevant to all domains of health sciences.

I would like to congratulate our journal committee and all concerned personnel for the publication of this first issue. I hope this journal will develop a new channel for authors for disseminating their research findings. Honorable medical researchers are invited to submit their research paper for the next issues.

Lastly, I express my heartfelt gratitude to all the researchers for their cordial Endeavour. I expect regular publication of the biannual issues of this journal would brighten the academic and research environment of this institution. I am very much hopeful for the better outcome of this journal.

Professor Dr. Jitesh Chandra Saha Editor-in-Chief, JDAMC

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#### Aims & Scope:

The Diabetic Association Medical College journal is a scientific journal dealing with clinical medicine, basic sciences, epidemiology, public health and various health care specialities. It is an official organ of Diabetic Association Medical College and going to be published biannually (January and July).

The journal publishes articles of authors from any part of the globe/country. It intends to publish the highest quality material on all aspects of medical science. It accepts original research articles, review articles, short communications, case reports and letters to editor. In addition, it provides readers with opinion regarding the articles published in the journal. Complimentary print copies of the journal are sent to libraries of all medical colleges and other relevant academic institutions in the country.

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# **Under 5 Survivals: Role of Iron Supplementation**

Biswas B K

The prevalence of Iron deficiency anaemia among infants and young children living in developing countries is high. Because of its' chemical properties namely its' oxidative potential-Iron functions in several in biological systems that are crucial to health. Iron, which is not eliminated from the body, can also cause harm through oxidative stress, interference with absorption and metabolism of other nutrients and suppression of critical enzyme activities. Various trials of preventive oral Iron supplementation in young children (Birth to 59 months) living in developing countries had done to ascertain the health benefits and risks.

Iron is essential for all tissues in a young Childs' developing body. It is present in the brain from very early in life when it participates in the neural myelination process. Other role that would affect the growth and immune function has been postulated.

Globally, in 2013 about 6.3 million died before reaching fifth birthday. Of these deaths, 2.8 millions were neonates, 1.8 millions were post neonatal (1-11months) and 1.7 millions death occurred between 12-59 months<sup>1</sup>. Iron deficiency is the most common cause of anaemia during pregnancy and daily use of Iron supplementation during pregnancy significantly reduces maternal anaemia by 50% and risk of Low Birth Weight by 19%<sup>2</sup>.

The current WHO guideline recommend a standard daily oral dose of 30 to 60 mgs of elemental Iron and 400mcgs of Folic acid supplements throughout pregnancy, to begin as early as a part of antenatal care programme<sup>3</sup>. Antenatal use of Iron-folic acid supplements also has an effect on child survival<sup>4</sup>. Various studies suggested that infant stores of Iron are not critical in childhood mortality and the risk of preterm birth, birth asphyxia or poor temperature regulation may be the mechanism responsible for under 5 deaths, which can be reduced by antenatal Iron-folic acid supplementation<sup>5-7</sup>.

Iron supplementation for children under five years is recommended on the basis of anaemia prevalence. Low Birth Weight infants are at high risks of Iron deficiency and the current recommendation that they receive supplementation from 6 weeks to 8 weeks of age. The consumption of iron-poor complementary diets is also to justify the supplementation in preschool aged children. Complementary feeding, even with continued breast feeding must contribute nearly 100% of dietary Iron for young children because breast milk contains little Iron for that age groups.

Address of correspondence: Professor Dr. Barun Kanti Biswas; MBBS, FCPS Professor & Head, Department of Paediatrics Diabetic Association Medical College, Faridpur. Cell: +88 01715 013854, Email: drbarun2008@yahoo.com Iron serves as an essential nutrient for metabolic pathways for both humans and microorganisms. Pathogenic microorganisms, including bacteria, fungi and protozoa require iron for growth and proliferation. As a defense strategy, hosts have numerous mechanisms to reduce the availability of iron to invading pathogens<sup>8</sup>. Therefore, the decision to supplement iron in patients with infections require careful consideration of risks versus benefit<sup>9</sup>. However, Cochrane Collaboration study concludes that Iron alone or with antimalarial treatment does not increase the risk of clinical Malaria or death when regular malaria surveillance and treatment service are provided<sup>10</sup>. Insufficient data are available on Iron supplementation in relation to HIV or Tuberculosis outcome for conclusion to be drawn about possible benefits or risks.

The need to address the problem of Iron deficiency and related consequences affecting millions of children worldwide is undisputed. Finding the appropriate, the response, however, particularly for young children living in developing countries, is a more difficult endeavor. The availability of resources. both financial and staffing, may be a problem if screening for Iron deficiency and targeting treatment regimens are necessary to avoid causing harm to some children in the population. Alternative prevention and control strategies such as diet based approaches may be preferred, if vulnerable population groups have access to foods, because that group may be able to avoid the adverse effects associated with supplementation.

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# Post-operative Genitourinary Fistula: A Survey in Faridpur Medical College Hospital (FMCH) and Diabetic Association Medical College Hospital, Faridpur (DAMCH)

Pramanik  $D^{1}$ , Saha  $JC^{2}$ , Khanom  $S^{3}$ , Begum  $P^{4}$ , Ahmed  $S^{5}$ 

#### Abstract

It was a retrospective study done in Faridpur Medical College Hospital, Faridpur, Bangladesh and Diabetic Association Medical College Faridpur from January 2001 to July 2015. Within this time 54 cases of genito-urinary fistulae (GUF) were treated. 11 vesico- vaginal fistulae were obstetric (following LSCS) in origin and rest 43 were Gynecological (mostly following TAH) fistula. Highest incidence was uretero- vault fistula which was the sequelae of surgery mostly done by non gynecological and non- specialist (about 90%), next was vesico- vault, vesico- vaginal and uretero vaginal fistula by obstetrician and gynecologist about (10%). Ninety three percent fistula developed in rural and urban clinics and 6.80% in hospitals. The result of treatment were excellent. Technical improvement of the surgery and referral to specialized Centre for fistula management certainly improves the success and diminishes the suffering of the patients

Key Words: Fistula, Genitourinary, Iatrogenic

#### Introduction

Genitourinary fistula is a major problem in many developing countries; specially the vesico-vaginal fistula (VVF) commonly caused by prolonged obstructed labour is one of the worst complication of child birth. Urological fistulae are not uncommon consequences of gynecological surgery. Iatrogenic fistulae due to gynecological surgery generally appear from three days to six weeks after surgery and the communication tracts uretero- vault, vesico- vault and vesico-uterine. Most authors quote an incidence rate for VVF after total abdominal hysterectomy (TAH) to be 0.5%, others suggest only a 0.05% incidence rate of injury to either the bladder or ureter<sup>1</sup>. Lee, in a series of 35,000 hysterectomies found that more than 80% of genitourinary fistula were due to gynecological surgery for benign diseases<sup>2</sup>. Uncomplicated TAH accounted for more than 70% of these surgeries. The indications of these are pelvic inflammatory

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#### Address of correspondence:

Professor Dr. Dipti Pramanik, MBBS; FCPS (Gynae. & Obst.), Professor & Head, Department of Obstetrics & Gynaecology, Diabetic Association Medical College, Faridpur. Cell: +8801720 238839. Email: diptipramanik@yahoo.com disease (PID), endometriosis, dysfunctional uterine bleeding (DUB), leiomyoma and prolapsed. The purpose of these studies was to know the etiological background of postoperative fistula, its prevention and management in Faridpur Medical College Hospital, Faridpur and Diabetic Association Medical College Hospital, Faridpur.

#### **Materials and Method**

This was a retrospective study done in Faridpur Medical College Hospital, Faridpur Bangladesh and Diabetic Association Medical College Hospital, Faridpur from January 2001 to July 2015. The patients presented with symptoms of continuous dribbling of urine with normal urge of micturition following abdominal or vaginal surgery. The nature of the previous surgery was explored to know whether it was caesarean section or caesarean subtotal or total abdominal hysterectomy, total time required to the development of fistula, the place of surgery i.e., clinic or hospital and the qualification of surgeons. Clinical examination was done under spinal anaesthesia to know the position, size, and number of fistulae, associated fibrosis and vaginal stenosis.

Dye test was done for confirmation in most cases. Special investigations like intravenous urography (IVU) and cystoscopy were done for confirmation of GUF when needed. Local repair, reimplantation of ureter into bladder or repair by transvesical route under general anaesthesia /spinal anaesthesia was done. All cases were followed up to six months.

#### Results

The study revealed age range of the patients were 15- 50 years. Fifteen cases were having obstetric fistulae due to pressure necrosis from obstructed labour and iatrogenic fistulae were found in 39 cases (Table 1) presented the characteristics of study patients. Among patients having 36 were having vesico-vault fistula and 12 were vesico-vaginal

fistula, 4 were juxtacervical and 2 were uretero-vault fistulae (Table 2). Six fistulae resulted from surgery by obstetric specialist, nine cases were done by general surgeons and 39 cases were by unskilled non-specialist hand (Table 3). More than 85% surgery was performed in clinic and 14% in hospitals (Table 4). Among 54 patients, operation were performed throughabdominal route in 21cases and vaginal route in 33 cases (Table-5). Local repair was done in 33 cases (61.11%), transvesical repair in 17 cases (31.49%) and ureter re-implantation in 4 (7.40%) case (Table 6). After operation, three cases (uretero vault fistula, VVF and vesico uterine fistula) again developed urinary incontinence. Thereafter two cases (uretero vault fistula and VVF fistula) the tract was closed within 90 days and 45 days respectively but in vesicouterine fistula, whose complaint was menouria, the patient refused further surgical intervention.

#### Table 01: Causes of Fistula (N=54)

Causes	Number of patient	Percentage (%)
Iatrogenic	39	72.22
Obstructed labour	15	27.77

#### Table 02: Types of Fistula (N=54)

Types	Number of patient	Percentage (%)
Vesico vault	36	66.66
Vesico vaginal	12	22.22
Juxtacervical	04	7.40
Uretero- vault	02	3.70

#### Table 03: Qualification of the surgeon (N=54).

Qualification of the surgeon	Number of patient	Percentage (%)
Unskilled/No specialist	39	72.22%
General Surgeon	9	16.67%
Obstetrician	6	11.11%

#### **Table 04:** Place of operation (N=54).

Place of operation	Number of patient	Percentage (%)
Clinic	46	85.18%
Hospital	08	14.81%

Table 05: Routes of operation of Fistula (N=54).

Route of operation	Number of patient	Percentage (%)
Abdominal	21	38.89%
Vaginal	33	61.11%

Table 06: Repair type of Fistula (N=54).

Type of repair	Number of patient	Percentage (%)
Local repair	33	61.11%
Transvesical repair	17	31.49%
Ureter re- implantation	04	07.40%

## Discussion

Urogenital fistula is uncommon consequence of gynecological surgery. Vesicovaginal fistula due to gynecological surgery generally appears 1-6 weeks after surgery and recurrent fistula within three months of repair<sup>3</sup>.

This retrospective analysis of GUFs cases in Faridpur Medical College Hospital, Faridpur Bangladesh and Diabetic association Medical College Faridpur Bangladesh from January 2001 to July 2015 it was found that in recent few years the iatrogenic fistula is more common than the obstetric fistula. A UNFPA survey estimates that over two million women in Bangladesh suffer from obstetrical fistula. Over 88% of deliveries in the country still take place in inexpert hands. Actually, there is no report of development of iatrogenic fistula in our country, which was the sequalae of gynecological surgery by untrained and inexperienced hands. In this series 65.50% of fistulae were developed by unskilled practitioners, general surgeon in 24% and by obstetrical and gynacologist in 10%; 93% of operations were performed in clinics and 6.8% were in hospitals. Recently, the obstetric fistula are gradually declining in number due to development of trained personnel's by the activities of comprehensive emergency obstetric care( EOC), improvement in spinal anaesthesia and blood transfusion facilities. On the other hand iatrogenic fistula are gradually declining in its incidence. Most patients live in rural areas and illiterate, and they have little basic knowledge of the disease. They have no idea who is the right person for consultation. In obstetric fistula, more than 50% of the women were deserted by their husbands after the fistula developed. About iatrogenic fistula, the family were worried and seek for medical advice in 100% cases. Treatment started within six months of fistula development. Controversy surrounds the length of delay between diagnosis and surgical GUFs. Analysis of the data showed that no repair of definition has been established for early and late intervals. Traditionally, operation time was in the range of 8 to 12 weeks interval between index surgery and repair. O'conor agrees that exact timing for repair depends on the tissue health. Most of his patents were brought to surgery approximately three months after index surgery<sup>4</sup>. All cases were repaired after three months of index surgery. GUF in developing countries are attributed to inadvertent bladder injury during pelvic surgery (90%). It involves relatively limited local bladder injury leading to smaller VVFs than those are observed in obstetric fistula<sup>5</sup>. Numerous authors highlighted the risk of various types of bladder injury during

pelvic surgery<sup>6</sup>. Such injuries include unrecognized intraoperative laceration of the bladder, bladder wall injury from electocautery or mechanical crushing and the dissection of the bladder into an incorrect plane, causing avascular necrosis.<sup>7,8,9</sup> Suture placement through the bladder wall itself may not play a significant role in VVF development. However, the risk of formation of a hematoma of avascular necrosis after a suture is placed through the bladder wall can lead to infection and abscess of the bladder wall. This wall defect permits the escape of urine into vagina and may be followed by an eventual epithelialisation of the track. Symmonds evaluated 800 GUFs over a 30 year period at the Mayo clinic, 85% of the VVFs s were related to pelvic operation and 75% were related to hysterectomy and 50% being secondary to simple uncomplicated total hysterectomy or vaginal hysterectomy<sup>10</sup>. The patients in this study are operated by local repair, ureter re-implantation into bladder and transvaginal repair in 92% cases and success rate was 100% and conservatively managed three cases one developed VVF after vaginal hysterectomy and one uretero vault fistula.; the fistula tract spontaneously closed within three months. One case of menouria had previous three caesarean section and she refused to further surgery. She was advised to use continuous oral contraceptive pill. Oral oestrogen tablet was used to improve the tissue vascularization and healing in two post menopausal patients.

GUFs are hidden tragedy for the patient and her family and for the treating surgeons. To reduce the incidence of GUFs medical ethics should be followed by all physicians. Governments should take initiatives for improving the training facilities both for the government and nongovernment doctors. Periodic follow up of the service quality of the private clinics will reduce the incidence of iatrogenic genitourinary fistulae.

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# Septic Abortion Cases at a Tertiary Centre of Khulna region: A descriptive analysis

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## Abstract

This was a descriptive type of study. The study was conducted at a tertiary level hospital of Khulna region. It aimed to evaluate the incidence, maternal morbidity & mortality, clinical features, management in cases of septic abortion in a tertiary centre. This study included 33 cases of septic abortion admitted during 5 years from January 2006 to January 2011 in the Department of obstetrics & Gynecology in Khulna Medical College Hospital. All patients were evaluated with special reference to incidence, etiological factors, clinical features, surgery & maternal morbidity & mortality. The incidence of septic abortion was 1.26%. Common age group was between 26-30 years. Most of the cases were from lower socioeconomic status. Septic abortion following spontaneous abortion was present in 4 cases. Unwanted pregnancy was the indication for termination of pregnancy in 29 cases while 4 women were admitted in state of septic shock. 11 cases required laparotomy for drainage of pus, 1 had hysterectomy, 1 had resection anastomosis & uterus repair was done in 2 cases. Overall maternal mortality was 4 (12.12%). The incidence of illegal and septic abortion can be reduced by increasing awareness about family planning services and making legal abortion services easily available to the women and that too at a cheaper cost.

Key Words: Septic Abortion, Maternal Mortality, Morbidity, Unwanted pregnancy.

## Introduction

Unnatural deaths are due to some kind of interference among 20-25% of all pregnancy related cases. About 50,000 to 140,000 abortions related unnatural death happen every year in the world.<sup>1</sup> In developed countries it estimated that 20-30% of all pregnancy related unnatural deaths result from complication of unsafely performed abortions.<sup>2</sup>

In India each year about 1, 25,000 women die from pregnancy related causes.<sup>(3,4)</sup> At least 1/5th of these deaths are caused by induced abortion, sepsis being one of the causes. In the majority of cases the infection occurs following illegal induced abortion but can occur even after spontaneous abortion. Abortion was legalized in our country through MTP act in 1972, still the incidence of septic abortion ranges from 2-10%.<sup>(5,6)</sup>

Septic abortion is the major life threatening complication that could be tackled significantly through good quality health care. The common cause is abortion by untrained personnel, dais and quacks. Poverty, ignorance and non availability of trained personal contribute to high incidence

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Professor Dr. Haridas Biswas; MBBS, MCPS, DFM, Department of Forensic Medicine, Diabetic Association Medical College, Faridpur. E-mail: journal.damcf@gmail.com, Cell: +8801913813519 of septic abortion. These cases are mostly referred to hospitals very late after occurrence of complications leading to high maternal morbidity and mortality.

## Material & Methods

The study was done by evaluating the records of the hospital register of obstetrics & gynaecology department of Khulna Medical College hospital. It comprised of 33 cases of septic abortion over a period of 5 years from January 2006 to January 2011 admitted in the Department of obstetrics and gynecology in Khulna Medical College hospital. This is the only referral centre of the Khulna region. It includes district of Khulna, Bagerhat, Satkhira, Narail, Goplagong, Pirojpur & Jessore. All cases were analyzed with respect to various demographic factors, clinical features, management, complications, maternal morbidity and mortality and surgical intervention.

#### Result

During the period of the study there were 2612 abortions of which 33 women had septic abortions giving an incidence of 1.26%. Majority of the patients were between the age of 26-30 years. There were 4 primigravida and 29 multi-gravida cases.

**Table 1:** Distribution of septic abortion cases according to age & gravida. (n=33)

Age (yrs)	Primigravida	Multigravida
20-25	2 (6.06)	3 (9.09)
26-30	1 (3.03)	17 (51.51)
31-35	1 (3.03)	8 (24.24)
36-40	0	1 (3.03)

Most of the cases (26) belonged to lower class, 5 were from lower middle class and 2 from upper middle class.

 Table 2: Distribution of septic abortion cases according to different socioeconomic status. (n=33)

Socioeconomic Status	Cases	Percentage
Lower Class	26	78.78
Lower Middle	5	15.15
Upper Middle	2	6.06

25 patients came from rural areas and 8 were from urban areas. 29 were referred cases.

The period of gestation at the time of abortion was between 7-12 weeks in maximum no. of cases (21).

**Table 3:** Distribution of septic abortion cases according to period of gestation. (n=33)

Period of Gestation (wks.)	Cases	Percentage
<6	10	30.30
7-12	21	63.63
13-18	2	6.06

Out of total 33 cases 4 patients had sepsis after spontaneous abortion and the remaining 29 was followed by instrumental termination of pregnancy. Untrained persons like quacks or

ANMs performed termination in 26 cases and in 3 it was performed by doctor. The indication for termination of pregnancy was unwanted pregnancy in 29 cases. 4 patients had spontaneous incomplete abortion at home and came later on to the hospital with features of sepsis. The common symptoms seen in these patients were pain in abdomen, fever, distension of abdomen, foul smelling vaginal discharge.

**Table 4: :** Distribution of septic abortion cases by clinical features at the time of admission. (n=33)

Clinical Features	Cases	Percentage
Pain in abdomen	31	93.93
Fever	16	48.48
Distension of abdomen	11	33.33
Foul smelling vaginal discharge	6	18.18
Something coming out of vagina	3	9.09

Examination showed tenderness of abdomen with distension and fever in majority of cases. On USG retained products were present in 14 cases, fluid in abdomen and pelvis was present in 16 and both in 3 cases.

Clinically the patients are categorized in 3 grades.

Table 5: Distribution	of septic abortion	cases of spreading
infection according to o	category of grade.	(n=33).

Grade	Spreading site of infection	Cases	Percentage
Grade-I	Infection localized in the uterus.	8	24.25
Grade-II	Infection spreads beyond the uterus to the parametrium, tubes and ovaries or pelvic peritoneum.	4	12.12
Grade-III	Generalized peritonitis and / or endotoxic shock or jaundice or acute renal failure.	21	63.63

Grade I is the commonest and is usually associated with spontaneous abortion. Grade III is almost always associated with illegal induced abortion. Grade I, II, III consisted of 8, 4, and 21 patients out of which 2 developed varying degree of renal failure while 1 developed disseminated intravascular coagulation.

Intensive management, broad spectrum antibiotics, dopamine infusion, blood transfusion, were required.

**Table 6:** Distribution of septic abortion cases according to medical treatment. (n=33)

Medical Treatment	Cases	Percentage
Broad spectrum Antibiotic	33	100
Dopamine Infusion	4	12.12
Blood Transfusion	22	66.66

Evacuation of uterus was done in 15. colpotomy in 3, lapratomy with drainage of pus in 11, uterus repair in 2, hysterectomy in 1 and resection anastomosis of bowel in 1 patients.

 Table 7: Distribution of septic abortion cases according to surgical treatment. (n-33)

Surgical Treatment	Cases	Percentage
Evacuation	15	45.45
Colpotomy	3	9.09
Laparatomy with drainage of pus	11	33.33
Laparatomy with repair of uterus	2	6.06
Laparatomy with hysterectomy	1	3.03
Laparatomy with resection anastomosis	1	3.03

Out of 33 patients, 4 died (12.12%), 2 left against medical advice and one had a relaparatomy. Septic shock, renal failure and disseminated intravascular coagulation (DIC) contributed to maternal mortality. 26 patients had complete recovery.

## Discussion

Although non-therapeutic abortions are illegal in Bangladesh, the practice is quite common. About 8000 deaths occur every year due to septic abortion (BFRP-MR news letter 1988). In our study out of 33 septic abortion patients, 26 patients came from lower class family, 5 came from lower middle family & 2 came from upper middle family. According to period of gestation 10 patients were less than 6 weeks, 21 patients were 7 to 12 weeks & 2 patients were 13 to 18 weeks. According to medical treatment broad spectrum antibiotics were given in 33 patients, dopamine infusions were given in 4 patients & blood transfusion were given in 22 patients. Out of 33 patients according to surgical treatment evacuation were done in 15 cases, colpotomy were done in 3 cases, laparatomy with drainage of pus were done in 11 cases, laparatomy with repair of uterus were done in 2 cases, laparatomy with hysterectomy was done in 1 case & laparatomy with resection anastomosis was done in 1 case.

Mesham et al (1981) estimated that in 1978 at least 7,800 unnatural deaths of Bangladeshi women were due to complications of interference of pregnancy. Tahera & Begum (1991) in Dhaka Medical College Hospital showed 86% of the septic causes were due to interference i.e. induced. The unnatural deaths from septic causes were 10%. Azim (1989) found 634 cases of septic abortions in Dhaka Medical College Hospital & the mortality studied to be 12%.<sup>7</sup>

Although abortion services were liberalized in India & Bangladesh more than 4 decades ago, access to safe services remain limited for the vast majority of women. Majority of women seeking abortion still turn to uncertified providers for abortion services because of barriers to legal abortion. Women with access to fewer resources, for example low income, rural women, adolescents are among those most likely to turn to unsafe abortions and have complications.

A septic abortion is a form of abortion that is associated with a serious uterine infection. The infection carries risk of spreading infection to other parts of the body and causing septicemia, a grave risk to life of a woman. Septic shock may lead to kidney failure, bleeding diatheses and DIC<sup>(8,10)</sup>. Intestinal organs may also become infected, potentially causing scar tissue with chronic pain, intestinal blockage and infertility. If not treated quickly and effectively the woman may die. So early referral of septic cases is important. Once the patient progresses to septicemia complication rate becomes very high. Complications like fever, wound infection and wound dehiscence, pelvic thrombophlebitis are seen in post operative period.<sup>(5,9)</sup>

Besides intensive management, broad spectrum antibiotics, dopamine, blood transfusion and early surgical intervention can significantly improve the outcome. Surgery in the form of D, E & C, lapratomy, hysterectomy was done to remove the source of infection as early as possible. Role of early surgery is controversial but studies by Singhal et al and Rivlin and Hunt<sup>(9,10)</sup> have shown that early surgical intervention can significantly improve the outcome. Our study also showed similar results. A similar study by Shailesh Kore, et al.<sup>11</sup> showed that mortality was 100% in conservative group as compared to 20% in the surgery group.

Although abortion has been greatly liberalized, the annual number of legal abortions are about 0.6 million, which contribute hardly 10% of the abortions done in the country. In other words, illegal abortions are still common although it is now more than 40 years since the MTP Act has been promulgated. Experts opinion that facilities for safe, legal abortion should be made universally available.<sup>(11,12)</sup>

Septic abortion, a complication mainly due to illiteracy and unawareness can be prevented by increasing education and awareness about availability of family planning services and MTP services free of cost in the government hospitals. To reduce mortality and morbidity from unsafe abortion several broad activities require strengthening, decreasing unwanted pregnancies, increasing access to safe abortion services and increasing the quality of abortion care including post abortion care.

## Conclusion

2612 abortion cases were studied in the department of obstetrics & gynecology at Khulna medical college hospital from January, 2006 to January, 2011. Out of them, 33 (1.26%) cases were septic abortion. 26 (78.78%) cases belonged to lower class. 18 (54.54%) cases ware between the age of 26-30 years. Out of 33 patients, 4 (12.12%) was died. Septic abortion is one of the important cause of maternal mortality.

## Recommendation

- Prevention of early marriage & implementation of existing law properly.
- Unwanted pregnancy should be avoided with proper attention of the guardian.
- Proper child bearing spacing should be maintained with family planning logistics by counseling of the family planning department.
- Easy availability of family planning logistics should be maintained.
- Prohibition of treatment of dhais, quacks & other village doctors.

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# Knowledge on common geriatric health problems among the rural people of Modhukhali

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## Abstract

The growing number of older people is an emerging challenge for Bangladesh because of experiencing age structural transition. Older people are vulnerable to various health problems as various geriatric health problems come naturally with old age. Until now a very little attention has been paid on this issue in Bangladesh. The objective of this study is to assess the self reported knowledge status of the people at Modhukhali. For this purpose a cross sectional study was conducted. With the aid of a preformed interview schedule data was collected from a purposively selected sample of 342 respondents. It was revealed from the study that most of the respondents, about 85.38% were Muslims. Literacy rate of rural people of Modhukhali was poor. The result indicates that about 39.76% people were illiterate, but most of the respondents were aware of the major geriatric health problems.

The study revealed that about 92.98% people knows about cataract, 94.44% people knows about hearing defect with their aging. About 91.52% people know about hypertension & cardiovascular system related diseases. Majority of people 72.80% has knowledge about developing cancer after 40 years. Most of the people, about 76% has knowledge about Diabetes mellitus & it's consequences. Though the majority of the people are illiterate, they have a good knowledge about the common health problems occurring in old age. It may be the result of attending health education program already running in this area. Data shows that about 73.09% people attended the health education program.

The Geriatric health services of the country has been improved by some years but yet there are some lack in rural areas. The health education program about geriatric health should be run in rural areas. The young & middle aged people, who might be the sufferer of these health related problems should be aware before they get the disease. The number of health workers should be increased. Govt. should allocate budget and organize skillful training facility to these entire health service providers. On this purpose there is also need for strong supervision and monitoring of the geriatric health care services throughout the country.

Key Words: Common geriatric health problems, Aging, Prevention, Life style,

## Introduction

Ageing is a natural process. In the Words of Seneca; "old age is an incurable disease ", but more recently, Sir James Sterling Ross commented, "You do not heal old age. You protect it; you promote it; you extend it".<sup>1</sup> The word "geriatrics" was coined by Ignatz L Nascher in 1909. Gerontology is the science of ageing while geriatrics refers specifically to the problems associated with ageing.<sup>4</sup> Old age should be regarded as a normal inevitable biological phenomenon. No one knows when old age beings. It varies from person to person. It can be said that old age occurs incase of women 45-

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Dr. Shahana Afroz; MBBS, MPH Assistant Professor, Department of Community Medicine Diabetic Association Medical College, Faridpur. Email: ds afroz@yahoo.com, Cell: +8801753944555 55 years & in case of men 55-75 years.<sup>2</sup> In the year 2002, therewere an estimated 605 million old persons in the world of which 400 million are living in low income countries. Italy & Japan have the highest proportion of older person. By 2025, the number of elderly people is expected to rise more than 1.2 billion with about 840 million of these in low income countries. In India, although the percentage of aged person to the total population is low in comparison to the developed countries, nevertheless the absolute size of aged population is considerable. For the year 2003 the Sample Registration System (SRS) estimate are 7.2% of total population were above the age of 60 years.<sup>1</sup>

In the 21st century ageing population and their health has become a growing health and social care concern all over the world. This is because of an increase in the absolute and relative numbers of older people in both developed and developing countries. In recent studies, there were 600 million people aged 60 years and above in the world in 2000. By 2025, this figure would double to about 1.2 billion people and by 2050 there will be projected 2 billion aged population with 80% of them living in developing countries. The fast growing numbers and proportion of elder people is alarming as greater percentage of people will enter a period of life where the risk of developing certain chronic and debilitating illness will be considerably higher. Age related illness affect the majority of the elderly and seriously impair the quality of life.<sup>3</sup> The "biological age" of a person is not identical with his "Chronological age". It is said that nobody grows old by living a certain number of years. Our knowledge about the ageing process is incomplete. We do not know much about the disabilities incident of the ageing process. However the following are some of the disabilities occurring around the world are-senile cataract, glaucoma, nerve deafness, osteoporosis, emphysema, failure of special senses, changes in mental outlook, degenerative disease of heart and blood vessels, cancer, disease of locomotor system, chronic bronchitis, enlargement of prostate, frequent and urgency of micturition, hearing loss, genitourinary disorders, psychiatric problems, diabetes, hypercholesterolemia, kidney disease, skin disease and liver disease.<sup>3</sup>

The common geriatric health problems among the people of Asia and South-East Asia are coronary artery disease, peptic ulcer disease, hypertension, stroke, diabetes mellitus, malignancies, chronic renal failure and chronic obstructive pulmonary disease.<sup>5</sup>

Currently older people account for about 7% of the country's total population, amounting to roughly 10 million people. By 2020, the 60+ population will account for 20% of the total population.<sup>6</sup>

The common geriatric health problems in Bangladesh areischemic heart disease (56.5%), diabetes mellitus (41%), hypertension (39%), rheumatoid arthritis (13%), GIT problems (12%), kidney disease (11%), skin disease (9%), liver disease (8%), asthma (7%), joint pain (7%), muscle pain (4%), tremor (4%),<sup>3</sup>

Health problem of the aged

- 1. Problem due to the ageing process: senile cataract, glaucoma, nerve deafness, osteoporosis affecting mobility, change in mental outlook.
- 2. Problem associated with long term illness:
  - (a) degenerative disease of heart & blood vessels, cancer, accident, diabetes
  - (b) disease of locomotor system such as fibrositis, neuritis, myositis, gout, rheumatoid
  - arthritis etc.
  - (c) respiratory illness such as asthma, pneumonia, COPD.
  - (d) genitourinary system: enlargement of the prostate, nocturia, dysuria, frequency & urgency of micturition.
- 3. Psychological problems: mental change such as impaired memory, rigidity of outlook, sexual maladjustment, emotional disorders, etc.
- 4. Others: delirium, impaired vision, depression, feeling of loneliness and sleep disorders.

#### Factors related to geriatrics

1. Diet & nutrition : High intake of saturated fat & transfatty acid have been linked to raised cholesterol level in the blood that leads to development of cardiovascular disease. To prevent such problem one should intake calcium rich food, high fibre, fruits, vegetable, intake of high fat diet, salt and sugar should be reduced.

- 2. Exercise: It helps in maintaining a good health, lowers blood sugar level, lowers blood pressure, relieves stress, sleep disorders, improve emotional well being and improve bone density.
- 3. Weight: obesity is a major risk factor of development of heart disease, diabetes & stroke.
- 4. Smoking: 20% of men,18% of women aged 65-74years in developed countries are smoker. Cessation of smoking at the age of 50 years reduces the risk of dying within the of smoking next 15 years by 50%.
- 5. Alcohol: linked to liver disease, gastric ulcer, gout, depression, heart disease, diabetes and hypertension.

## Methods

It was a descriptive type of cross sectional study with the objective to assess the knowledge on common geriatric health problems among the rural people of Modhukhali.

The survey was carried out in different villages in Modhukhali Upazilla, Faridpur. People of Modhukhali Union of Modhukhali Upazilla were purposively chosen to constitute the study population for the present study the sample size was 342. A non-random purposive sampling technique was adopted to select the respondents from the study population to collect information. A resident person of a village community was chosen as respondent for the present study. Respondents were chosen purposively and convenience of the data collector was given priority during survey.

Data were collected from the respondents by face to face formal interview.

A pre-formed interview schedule (Questionnaire) was used as the instrument of data collection for the proposed study.

At first the interview schedules were rechecked to reduce the errors if any. Secondly necessary corrections were made.Thirdly the responses were coded adequately. Fourthly a master sheet was prepared based on variables used in the study. Finally necessary tabulations were prepared from the master sheet.

#### Results

The study was intended to find out the knowledge on Geriatric Health Problems of the rural people of Modhukhali. the study revealed that about 92.98% people knows about cataract, 94.44% people knows about hearing defect with their aging. About 96.49% people know about disturbed mobility. About 91.52% people know about hypertension & cardiovascular system related diseases. Majority of people 72.80% has knowledge about developing cancer after 40 year. Most of the people, about 76% has knowledge about Diabetes mellitus & its consequences. The study also shows

that 94.44% people know about respiratory diseases. Major people 61.69% has knowledge about disease related to urinary system but a few 27.48% people knows about prostate cancer. About 97.66% people know about impaired memory with growing age & 77.48% people know about suffering depression with aging.

The study also reveals that about 90.93% people knows that good diet can reduce the chance of developing cancer & about 95.90% people is aware of the importance of exercise. About 72.22% knows about the demerits of smoking & 68.12% people knows about the demerits of drinking alcohol, 79.53% thinks that involving in social activities help to maintain health in old people. This indicates that majority have a knowledge about the steps prior to prevention of disease. Though majority of people 39.76% are not educated, which was discussed above, they have knowledge about diseases of old people as well as the preventive measures.

This indicates that the health education program run by the health worker became successful enough in this area, because about 73.09% people attend the health education program.

**Table 1:** Knowledge about hypertension in old age. (n=342)Table shows that, majorities 91.52% have knowledge about

Hypertension	Number	%
Known	313	91.52
Not known	29	8.48
Total	342	100

hypertension & 8.48% have no knowledge about hypertension in old age.

**Table 2:** Knowledge of vulnerability to accident at home. (n=342)

Vulnerability to accident	Number	%
Known	310	90.64
Not known	32	9.36
Total	342	100

Table shows that, majorities 90.64% have knowledge about the vulnerability of accident at home & 9.36% have no knowledge in this regard.

 Table 3: Knowledge about occurring 75% of diabetes over 50 years of age.(n=342)

Knowledge about occurring 75% of diabetes over 50 years of age	Number	%
Known	264	76.30
Not known	78	23.70
Total	342	100

Table shows that, 76.30% of study population knows that 75% cases of diabetes mellitus occur over 50 years of age. 23.70% have no knowledge about it.

**Chart 1:** Knowledge about respiratory diseases occurring in old age. (n=342)



Chart shows that, 94.44% have knowledge & 5.56% have no knowledge about respiratory diseases occurring in old age.

**Chart 2:** Knowledge about reducing the chance of developing disease by exercise. (n=342)



Chart shows that, 95.90% have knowledge about exercise maintaining good health & 4.10% have no knowledge about it.

## Discussion

The result showed that about 44.15% people belonged to 41-50 years of age group. About 32.16% respondents were in the age group of 51-60 years & about 15% respondents were in the age group of 61-70 years. The study showed that most of the respondents (about 85.38%) were Muslim (similar to total population of Bangladesh, where 90.4% are Muslim)<sup>7</sup>. Literacy rate of rural people of Modhukhali was poor. The result indicates that about 39.76% people has no education & about 38.88% people were at least primary level passed. In rural areas, (at national level 45.21% did not pass class I and 21.84% have education of primary level)<sup>8</sup>

parents became aware of the need for education but poverty is the main obstacle. The result showed that majority 55.55% families had monthly income taka 0-10000 & only few families had good income. (average monthly income per household at current price was estimated at taka 11,479)<sup>8</sup> So, the findings suggests that majority of the people in modhukhali live under mid socio- economics condition. (The per capita income of people of Bangladesh is 1314 \$)<sup>10</sup>. The finding regarding economical status of the study area is comparatively similar to other rural areas of Bangladesh.

Majority of people 39.47% lives in tin made houses. (41.89% of household live in katcha durable housing structure with the wall and roof made of tin)<sup>9</sup> The people have pure tube well water supply about 99.12% (at national level 85.37% use tube-well water).<sup>9</sup>

According to National Survey, the study revealed that about 92.98% people knows about cataract, 94.44% people knows about hearing defect with their aging. About 96.49% people know about disturbed mobility. About 91.52% people know about hypertension & cardiovascular system related diseases. Majority of people 72.80% has knowledge about developing cancer after 40 year. Most of the people, about 76% has knowledge about Diabetes mellitus & its consequences. The study also shows that 94.44% people know about respiratory diseases. Majority people 61.69% has knowledge about disease related to urinary system but a few 27.48% people knows about prostate cancer. About 97.66% people know about suffering depression with aging.

The finding is too encouraging & indicates that the rural old people are aware about the geriatric health problems. About 85.08% people think that arranging health education program about geriatric health program is necessary.

## Conclusions

Normally it is seen that the rural people have some limitations in getting the health related knowledge. But

according to this study, the majority of people of village Modhukhali have knowledge about the health related problems at old age. The rest of people, who know a little about geriatric health problem, it is important to have the appropriate knowledge for the sake of their improvement.

Elderly people are a major portion of our nation. We all know that healthy people form healthy nation. To bring this we hope that govt. will give emphasis on the spread of information on health issues to every corner of the community focusing the rural people to improve the geriatric health in near future. Increased knowledge may increase their desire to be healthy as much as possible.

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# Maternal & Child Health Care Seeking Behavior of the Rural people of Bangladesh

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## Abstract

MCH is not a new speciality. It is a method of delivering health care to special group in the population which is especially vulnerable to disease, disability or death. MCH problems cover a broad spectrum. The present study was a cross sectional type of study carried out with the objective of exploring utilization of maternal and child health care services and health care seeking behavior by the rural people at Bhanga. A preformed interview schedule was used to collect data from a purposively selected sample of 120 respondents. It was revealed from the study that majority of the people prefers Government qualified doctors as their first choice of treatment of certain illness. Most of the respondents were aware about immunization programs. About 90% people were found BCG vaccinated, which is a significant one.

Majority of the mothers (61.67%) delivered their last baby at home. It was revealed that people preferred are less motivated about hospital delivery in the study area. As a matter of fact that, pregnant mothers less had TT vaccine of about 40%, which is not too satisfactory.

About family planning, the survey showed that about 80% of the females and 20% males were found practicing family planning methods currently. Most of them preferred oral pill (64.95% females) and condom (78% males), MCH programme should be strengthened to improve the health status of the community particularly for the mother and children in rural areas. There is also need for strong supervision and monitoring of the maternal health care services throughout the country. EOC programme should be implemented to every Upazilla Health Complex as early as possible. It is also necessary that a well-designed community based research should be carried out in rural areas to collect accurate information about the utilization of maternal health care services in rural Bangladesh.

Key Words: Maternal & child health problems, MCH services, Care seeking behaviour.

#### Introduction

In any community, mothers and children constitute a priority group. In sheer numbers, they comprise approximately 71.14 per cent of the population of the developing countries.

Mothers and children not only constitute a large group, but they are also a "vulnerable" or special-risk group. The risk is connected with child-bearing in the case of women; and growth, development and survival in the case of infants and children. Whereas 50 per cent of all deaths in the developed world are occurring among people over 70, the same proportion of deaths are occurring among children during the first five years of life in the developing world. Global

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Dr. Shukti Catherine Baroi; MBBS, MPH, Lecturer, Department of Community Medicine , Diabetic Association Medical College, Faridpur. observations show that in developed regions maternal mortality ratio averages at 13 per 100,000 live births; in developing regions the figure is 440 for the same number of live births. From commonly accepted indices, it is evident that infant, child and maternal mortality rates are high in many developing countries. By improving the health of mothers and children, we contribute to the health of the general population.

The problems affecting the health of mother and child are multifactorial. Despite current efforts, the health of mother and child still constitutes one of the most serious health problems affecting the community, particularly in the developing countries. The present strategy is to provide mother and child health services as an integrated package of "Essential health care", also known as primary health care which is based on the principles of equity, intersectoral coordination and community participation. The primary health care approach combines all elements in the local community necessary to make a positive impact on the health status of the population, including the health of mothers and children.

Mother and child must be considered as one unit. It is because: (1) during the antenatal period, the foetus is part of the mother. The period of development of foetus in mother is about 280 days. During this period, the foetus obtains all the building materials and oxygen from the mother's blood; (2) child health is closely related to maternal health. A healthy mother brings forth a healthy baby; there is less chance for a premature birth, stillbirth or abortion; (3) certain diseases and conditions of the mother during pregnancy (e.g., syphilis, German measles, drug intake) are likely to have their effects upon the foetus; (4) after birth, the child is dependent upon the mother. At least up to the age of 6 to 9 months, the child is completely dependent on the mother for feeding<sup>4</sup>.

Every year more than half a million (5,29,000) women in the world dying from causes related to pregnancy & child bitrth.<sup>1</sup>

In February, 1987, the Safe Motherhood Conference was held in Neirobi, Kenya gave rise to a global programme "Safe Motherhood Initiatives". Its goal is to reduce maternal death to at least half by 2000.<sup>2</sup>

According to census the current population of Bangladesh is estimated at 14, 97, 72, 364.<sup>8</sup> The density of population per sq. km. is 1237.51.<sup>6</sup> In Bangladesh about 24 million are women aged 15 to 49 years. The number of pregnant woman around 3.8 million & currently 21,000 women die every year due to causes related to pregnancy & child birth. Bangladesh is one of the countries having the high level of maternal mortality (3.2 per thousand live births) & infant mortality rate is 52 per thousand live births.<sup>3</sup>

In 2010 TFR & NRR is 2.38 & 1.18 respectively. The bed population ratio has increased from 1:6350 in 1973 to  $4:10000 \text{ in } 2007.^{\circ}$ 

MCH problem cover a broad spectrum, the most advanced countries are concerned with problems such as perinatal problems, congenital malformations, genetic and certain behavioural problems. At the other extreme, in developing countries, the primary concern is reduction of maternal and child mortality and morbidity, spacing of pregnancies, limitation of family size, prevention of communicable diseases, improvement of nutrition and promoting acceptance of health practices. Currently, the main health problems affecting the health of the mother and the child in India, as in other developing countries, revolve round the triad of malnutrition, infection and the consequences of unregulated fertility<sup>4</sup>.

The problems facing the health worker in the developing world are vast and are nowhere more evident than in the field of childcare. The main health problems encountered in the child population comprise the following.

- 1. Low birth weight
- 2. Malnutrition
- 3. Infections and parasitosis
- 4. Accidents and poisoning
- 5. Behavioural problems.

At present in Bangladesh among under five children 41.3% are stunted, 15.3% are severely stunted, 36.4% are underweight.<sup>7</sup>

The MCH services encompass the curative, preventive and social aspects of obstetrics, paediatrics, family welfare,

nutrition, child development and health education.

The specific objectives of MCH are:

- (a) reduction of maternal, perinatal, infant and childhood mortality and morbidity
- (b) promotion of reproductive health
- (c) promotion of the physical and psychological development of the child and adolescent within the family. The ultimate objective of MCH services is life-long health.<sup>4</sup>

Maternal and child health status is assessed through measurements of mortality, morbidity and, growth and development. The commonly used mortality indicators of MCH care are:

- 1. Maternal mortality rate
- 2. Mortality in infancy and childhood
  - a. Perinatal mortality rate
  - b. Neonatal mortality rate
  - c. Post-neonatal mortality rate
  - d. Infant mortality rate
  - e. 1-4 year mortality rate
  - f. Under 5 mortality rate
  - g. Child survival rate.

At the union level, the first level of static health facilities, are the union subcentres (USC) and family welfare centres (FWC).

At the upazila level, the MCH units at the thana health complexes provide care for pregnant women and the underfive children.

At district level, there are two sets of facilities which cater for pregnant women and children. One of these is the maternal and child welfare centre (MCWC).

At the national level, all hospitals attached to medical colleges provide obstetric and paediatric services, and the family planning model clinics provide contraceptive services to the incoming clients.

By improving the health of mothers and children, we contribute to the health of the general population.<sup>5</sup>

## Methods

It was a cross sectional type of study with the objective of finding out maternal and child health care seeking behavior by the rural people.

The survey was carried out in different villages in Bhanga, Upazilla, Faridpur.

People of Goladi Union of Bhanga Upazilla were chosen to constitute the study population.

For the present study the sample size was 120.

A non-random purposive sampling technique was adopted to select the respondents from the study population to collect information. Resident people of a village community was chosen as respondent for the present study. Respondents were chosen purposively and convenience of the data collector was given priority during survey.

Data were collected from the respondents by face to face formal interview.

A pre-formed interview schedule (Questionnaire) was used as the instrument of data collection for the proposed study.

At first the interview schedules were rechecked to reduce the errors if any. Secondly necessary corrections were made. Thirdly the respondents were coded adequately. Fourthly a master sheet was prepared based on variables used in the study. Finally necessary tabulations were prepared from the master sheet.

## Results

The study was intended to observe maternal & child health care seeking behavior of the rural people. The study revealed that, 61.7% of the respondents prefer home delivery & rest 38.33% were seen to prefer hospital delivery. About to receive primary health care, most people preferred Government qualified doctors (76.67%). It was revealed that few respondents about 38.33% had taken TT vaccination, 87.50% children had been BCG vaccination by their parents. The study findings show that 80.83% females & 19.17% males are using family planning methods currently.

The study revealed that, 64.17% women became pregnant in last 12 month.61.67% were found as Home delivery and rest 38.33% were seen to prefer Hospital delivery ,it indicates that the rural people here still prefer home delivery than hospital.

Table 1: Place of delivery

Place of delivery	Number	Percentage (%)
Home	74	61.67
Hospital	46	38.33
Total	120	100.00

About Place of delivery, it was found that out of 120 respondents, majority [74(61.67%)] of them delivered child in Home and the rest[46 (38.33\%)] of them delivered child in Hospital (Table 1).

**Table 2:** Preference of initial contact when any one of the family become ill

	Govt. Qualified	Un- qualified	Others (Kobir)	Total
Number	92	23	5	120
%	76.57%	19.17%	4.6%	100

About the preference of initial contact when any one of the family become ill the result showing out of 120 respondents, majority [92(76.67%)] of them went to Govt. qualified doctors, then [23(19.17%)] went to un-qualified doctors and the rest [5(4.16%)] went to the Kobiraz.(Table 2)

Table 3: Immunization status (BCG)

Status	Ν	(%)
Taken	105	87.50
Not-taken	15	12.5
Total	120	100

Immunization status (BCG) showing that most of the people [105(87.50%)] are immunized by BCG and rest of them [15(12.5%)] are not immunized by BCG. (Table 3)

Table 4: Immunization status (TT)

Status	Ν	(%)	Status	Ν
Taken	46	38.33	Taken	46
Not-taken	74	61.67	Not-taken	74
Total	120	100	Total	120

Immunization status (TT) showing that most of the people [74(61.67%)] are not immunized by TT and rest of them [46(38.33%)] are immunized by TT. (Table 4)

 Table 5: Distribution of respondents regarding using family

 planning

Respondents	Number	(%)
Male	23	19.17
Female	97	80.83
Total	120	100

About the preference frequency of respondents of using family planning the result showing out of 120 respondents, majority [97(80.83%)] of them were female who used the family planning, then [23(19.17%)] were male.(Table 5)









Regarding family planning status ,23 males were found responsive of which 18 used condom ,5 used vasectomy as family planning methods.On the other hand,97 females were found responsive for family planning where 63 used oral pills,28 used injection,6 used Ligation & IUCD as family planning method preference.

## Discussion

It was revealed that 16.67% people belonged to 30-34 years of age group. About 55.85% respondents were in the age group above 40 years. The result shows that majority of the respondents were middle aged. The study showed that most [107(89.17%)] of the respondents were Muslim. In Bhanga the community was predominant by the Muslims. This finding is more or less similar to other parts of the country. Literacy rate of rural people of Bhanga was higher. The results indicate that the people were atleast primary level passed. In rural areas the parents became aware of the needs for education. Besides these, HSC passed followed by Graduated people were also found in a significant number. The result showed that majority (44.68%) of the families in the study area had monthly income Taka 10000- 20000 and only few families had good income. So, the findings suggest that majority of the people in Bhanga live under mid socioeconomic condition. The finding regarding economical status of the study area is comparatively similar to other rural areas in Bangladesh.

The result indicates that proportionately nuclear family (50. 35%) was higher than that of joint family (49.65%) [Table no. 6]. People prefer to live in nuclear families now a day. It may be due to influence of modern culture and change of social norms and values.

The study revealed that, 64.17% women became pregnant in last 12 month.61.67% were found as Home delivery and rest 38.33% were seen to prefer Hospital delivery, it indicates that the rural people here still prefer home delivery than hospital.

About receive of Primary Health care, most people preferred Government Qualified doctors (76.67%).It indicates that people are highly motivated about their basic Health care facility. It also reflects the sincerity of the grass root health and family planning workers about the motivational activities regarding health care in the study

area. About TT vaccination, it was revealed that few(38.33%) of the female respondents had taken it. The finding is not too encouraging and indicates that the rural women were aware about the need for TT vaccination. It also shows that the health workers could not successfully motivated the rural people about the importance of TT vaccination. It is also a fact that, mothers having home delivery didn't prefer TT vaccine after birth.

However, Tetanus is an infectious disease. It is one of the 10 vaccine preventable diseases. This disease commonly affects the mother during delivery and the child due to unsafe cutting and stumping of umbilical cord. So it indicates that people should be conscious about the importance of vaccination. On the other hand, preference of BCG vaccination was significant.87.50% children had been BCG vaccinated by their parents.

In Bangladesh contraceptive prevalence rate is currently about more than 50.0%. The study findings show that 80.83% females and 19.17% males were using family planning methods currently. It is quite satisfactory in rural areas like Bhanga. It reflects that the people are well motivated about the need for practice of family planning methods in order to control the population size. This might be due to high literacy rate at Bhanga and also the family planning workers as well as other NGOs are working efficiently in the study area.

The study showed that about sixty percent (64.95%) females were using oral pill as contraceptive method and only 78% males were practicing condom. It indicates that female method is widely used by the couples and males are encouraged to use their method. The adverse effects of oral pill can be overcome by using male condom method which is also highly effective in control of STD.

In this regard, family planning workers need to work hard for the promotion of male family planning methods. Duration of use of family planning methods is associated with the control of fertility among the people. It increases the interval between successive births of children. Short duration of practice of any method might cause discontinuation of contraception and brings about unwanted birth to a family.

## Conclusion

Traditionally two groups in every society have been considered worthy of receiving particular attention, women during the period of pregnancies & children particularly during their infancy. Special care of a pregnant woman have double health benefits, first to her as an adult member of the society, second for the offspring.

The survey showed that 80.83% females 19.17% males of the people were found practicing family planning methods currently. Most of them preferred oral pill 64.83% & inject able one 28.87%. 62% of the respondents had received TT vaccine, 87.50% took the service of BCG vaccine for their children. It also showed out of 120 respondents, majority

61.67% of them delivered child at home & the rest 38.33% of them delivered child in hospital. About the preference of initial contact when any one of the mother & child become ill majority, 76.67% of them went to govt. qualified doctors, the 19.17% went to unqualified doctors & the rest 4.16% went to kabiraj.

We hope that govt. will take initiative to reduce the gap & to plan more effective service as well as to give importance to improve the MCH care seeking behavior among the rural people in very near future. Govt. will also need the support from national & international NGOs & doing by so it is possible to reduce maternal & child mortality & morbidity rate in Bangladesh.

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# Study of age related morphological change of the prostate gland in Bangladeshi male cadaver

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## Abstract

The prostate is a fibromuscular glandular organ which secrets a thin milky fluid that form the bulk of the semen, it also enhances the motility of the sperm that is important for successful fertilization of the ovum. Size and shape of this organ changes over times and usually increases more in later stage of life. The object of the study was to find out the age related changes of prostate directly by measuring volume of the prostate in male cadaver in our country.

It was a descriptive type of study. The study was carried out in the Department of Anatomy of Sir Salimullah Medical College (SSMC), Dhaka from July 2009 to December 2010. The present study was performed on 60 cadaveric (postmortem) human prostate of Bangladeshi male in different age groups. Among the studied samples, the lowest age was 10 years and the highest age was 70 years. The samples were collected, age ranging from 10-70 years and divided into three age groups; group A (10-18years), group B (19-45 years) and group C (46-70 years). The mean volume of the prostate was  $3.11 \pm 1.64$  cm<sup>3</sup> in group A (10-18years),  $8.76\pm 1.83$  cm<sup>3</sup> in group B (19-45 years),  $14.38\pm 2.40$  cm<sup>3</sup> in group C (46-70 years). The differences of volume of the prostate was highly significant (P<0.001) between A vs B, A vs C and B vs C. In this study, it was observed that there was significant change in volume of prostate in relation to age which in turn reflects similar findings found all over the world. The study is more accurate as the volume of the prostate was measured directly by removing the organ from the cadaver.

Key Words: Morphological change, prostate gland, Bangladeshi male cadaver

## Introduction

The prostate means before to stand (Gk.pro=before, istania=to stand)<sup>1</sup>. The prostate gland is a cone-shaped mass of glandular tissue about the size of a chestnut. It surrounds the first part of the urethra, known as the prostatic urethra. The prostate gland is surrounded by a thin fibrous capsule and a layer of smooth muscle<sup>2</sup>. It is a pyramidal fibromusculo glandular organ<sup>3</sup>. The space between the true and false capsule is occupied by the prostatic venous plexus. In no circumstances, this venous plexus should be disturbed for if it is injured, a severe bleeding will follow<sup>4</sup>.

Outside the true capsule lies a condensation of connective tissue separated from the capsule by less dense tissue; this outer layer is sometimes called the false capsule of the prostate<sup>5</sup>.

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Dr. Sultana Parvez; MBBS, M.Phil (Anatomy), Professor and Head, Department of Anatomy, University Dental College, Dhaka. Email: jubaidul.kabir@yahoo.com The prostatic urethra merges with the ejaculatory ducts and at this point angle forwards. Prostate consists of four zones of unequal size: Transitional zone comprises about 5% of the glandular tissue. It surrounds the proximal segment of the prostatic urethra. Central zone (20%) surrounds the ejaculatory ducts. Peripheral zone approximately (70%) makes the maximum bulk of the gland. Anterior fibro muscular stroma contains no glandular tissue and lies anteriorly<sup>6</sup>.

The associated mesenchyme differentiates into the dense stroma and smooth muscle of the prostate<sup>7.8</sup>. In the male, these buds form the prostate gland<sup>9</sup>.

Pathological processes in the prostate gland occur commonly in association with aging and include inflammation, atrophy, hyperplasia, intraepithelial neoplasia and carcinoma. Prevalence of benign enlargement of the prostate is 14% in 40-50 years old men, which increase to approximately 40% for men older than 60 years<sup>10</sup>.

## **Materials and Methods**

The present study was performed on postmortem (cadaveric) human prostates of Bangladeshi males of different age groups. The samples of human prostates were collected from the unclaimed dead bodies autopsied in the department of Forensic Medicine of Sir Salimullah Medical College (SSMC) and Dhaka Medical College (DMC), after fulfilling requisite legal formalities. The collection was done within 12 to 36 hours of death before showing any signs of putrefaction. Before collection of samples appropriate age, sex, cause of death, time and date of

collection were recorded from morgue's record book. Collected sample was brought to the Department of Anatomy, Sir Salimullah Medical College (SSMC).Then each sample was gently washed in running tap water to remove the blood and blood clots as far as possible. The sample were tagged immediately, which beared an identification number. After that the sample was fixed in 10% formol saline solution. Further study was done on fixed sample.

Study group	Age range (in years)	No of samples	Percentage
А	10-18	11	18.33
В	19-45	33	55
С	46-70	16	26.66

#### **Parameter studied**

Measurement of the volume of the prostate.

# Procedure of measurement of the volume of the prostate

Volume of the prostate was measured by ellipsoid formula in which three prostatic dimensions were required. In the axial plane, the transverse and antero-posterior dimension were measured at the widest transverse dimension. The longitudinal dimension was measured in the sagittal plane by slide callipers. Then the formula was applied:

Volume=Height x Width x Length x  $0.52^{11}$ .

For all the above mentioned variables, the measurements were taken thrice for each variable and the average value was calculated by simple arithmetic mean. The measurement was done by the researcher herself.

The volume was expressed in mean with standard deviation (SD) and comparison among the different age groups was made using ANOVA. The SPSS version11.0 was used.



Fig. 1: Photograph showing the prostate of three age groups.

group A (10 to 18 years) represented by - X group B (19 to 45 years) represented by - Y group C (46 to 70 years) represented by - Z

Table 2: Volume of the prostate in different age groups n=60	)
Group A: Age 10-18 years	

Groups n	Volume (cm <sup>3</sup> ) Mean±SD	
A 11	3.11±1.64	
	(1.24-5.70)	
B 33	8.76±1.83	
	(6.24-14.39)	
C 16	14.38±2.40	
	(10.30-19.63)	
Groups	P value	
A vs B	< 0.001****	
A vs C	< 0.001****	
B vs C	< 0.001****	

Group B: Age 19-45 years

Group C: Age 46-70 years

[Figures in parentheses indicate range]

Fig. 2: Relationship between age and volume of the prostate





Fig. 3: Volume of the prostate in different age groups

## Discussion

The highest mean volume of the prostate was  $14.38\pm2.40$  cm<sup>3</sup> in group C and the lowest was  $3.11\pm1.64$  cm<sup>3</sup> in group A. The values were highly significant (P<0.001) when compared between the groups. The volume showed positive correlation with age(r =+0.899, P<0.001) which was highly significant. The findings of the present study agreed with Ahmed (2007). The racial factors might be responsible for the similar values. This statement was lower than those reported by Gearhart et al. (1993), Zackrisson et al. (2000). They all studied by transrectal ultrasound examination. The different method used by them might be responsible for the lower values.

Gearhart, Yang, Leonard, Jeffs, Zerhouni (1993) studied on 13 prostate of Maryland people age ranging from 19 to 38 years observed that the mean prostatic volume was  $20.7\pm$   $8.2 \text{ cc}^{12}$ 

Zackrisson, Hugosson and Aus (2000) studied on 125 healthy male prostate of Sweden age ranging from 20 to 69 years stated that the mean prostatic volume in (20-29) age group was  $19.2 \pm 4$  cm<sup>3</sup>, in (30-39) age group was  $21.7 \pm 5.1$  cm<sup>3</sup>, in (40-49) age group was  $25.7 \pm 5.4$  cm<sup>3</sup>, in (50-59) age group was  $33.7 \pm 20.1$  cm<sup>3</sup> and in (60-69) age group was  $35.5 \pm 12.5$  cm<sup>13</sup>

Ahmed (2007) studied on 70 prostates of Bangladeshi people age ranging from 10 to 70 years. She reported that the mean prostatic volume was 7.68 cm<sup>3</sup> in group A (10-20 years), 10.61 cm<sup>3</sup> in group B (21-40 years) and 15.40 cm<sup>3</sup> in group C (41-70 years)<sup>14</sup>

## Conclusion

There were changes in the morphology and histomorphology of the prostate gland in relation to age. To establish a standard data for the volume of the prostate gland in Bangladeshi people, further studies are necessary with larger sample size from different age groups.

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# Drugs and Pregnancy: A Careful Concern for Mother and Child

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## Abstract

Drugs used during pregnancy may have temporary or permanent effects on the fetus. More than 90% of pregnant women take prescription or nonprescription (over-the-counter)drug. About 2% to 3% of all birth defects result from the use of drugs during pregnancy. However, drugs are sometimes inevitable for the wellbeing of the pregnant women and fetus. In everyday practice, the healthcare professionals are very much concern about the safety of a drug to be prescribed in pregnancy. Pregnancy Index will be a good reference of different drugs to be prescribed in pregnancy by physicians with confidence. Drugs can impair intrauterine growth by interfering with fetal metabolic processes. This may take the form of a simple inhibition of essential pathways, such as the utilization of folic acid, or may involve more complex alterations in genetic structure and expression. Fetal death and abortion can be caused by drugs. If drugs are given during the stage of organogenesis structural damage to the fetus may result. Preconception counseling and education regarding drugs will become increasingly important. It is important to screen systematically for such concerns as early as possible in pregnancy. Preconception planning only rarely provides an opportunity to identify exposures of concern as example. Oral hypoglycemic agents should be changed before pregnancy into injection insulin; any antihypertensive drugs should be changed as methyldopa, nidifine, labetolol. Anaemia should be corrected before pregnancy.

Key words: Drug, Congenital malformation, Teratogens.

## Introduction

Prescribing in pregnancy has remained a problem to practicing physicians over the years. Most women use a number of different medications during pregnancy, many of which are self-administered. Only a small percentage of these drugs are reported to health professionals. General principles of drug uses in pregnancy are as follows i.e. consider all drugs have the potential for affecting the fetus except heparin and insulin, all the patients are at risk in pregnancy during reproductive years, risk benefit ratio should justify the use of a particular drug, and the minimum effective dose, drugs should be used only when necessary, and avoids long term use and no drugs are considered totally safe in pregnancy due to lack of sufficient reports<sup>1</sup>.

The drugs are uses in pregnancy must follow the 'obstetrics rules' like. "First does no harm". "Never be the first to use the new". Never the last to use the old" and "Remember that all women are pregnant until proved otherwise"<sup>2</sup>.

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## The effects of drugs

All the drugs of various categories mentioned below should be avoided if possible during the 1st trimester. During the 1st trimester drugs may produce congenital malformations (teratogens), and the greatest risk is from the 3rd to 11th week of pregnancy (stage of organogenesis). Therefore Wilson's six general principles of teratogenesis like genotype and interaction with environmental factors, timing of exposure, mechanisms of teratogenesis, manifestation, agent and dose effect needs to be careful consideration.

Maternal pharmacokinetics also be in careful consideration in regards to absorption as pregnancy can alter the absorption of oral drug; hyper-emesis gravidarum does not retain the drug. Gastrointestinal transit is prolonged owing to slow emptying of the stomach and reduced gut motility<sup>3</sup>.

In regards to distribution; lipid solubility and protein binding affect the distribution of drugs. Plasma drug concentration is greatest for drugs with low lipid solubility that are highly bound to plasma protein are also the important point for consideration as well.

Moreover, Drug metabolism e.g. Water soluble drugs are eliminated unchanged. Lipid soluble drugs are metabolized by oxidation, or conjugated in the placenta and fetal liver before being excreted in bile or urine.

In addition, Drug excretion depends on renal plasma flow (RPF), Glomerular filtration rate (GFR), Creatinine clearance and those all increased in pregnancy; drugs excreted unchanged and more quickly.

The points of fetal pharmacokinetics e.g. distribution, metabolism and fetal excretions occur in the fetus and placenta in particulars.

It is to be noted that placental transfer of drugs can also be considered due to the facts that the human placenta allows bi-directional transfer of most molecules below molecular weights of 1500. The great majority crosses the placenta by simple diffusion. Highly fat-soluble molecules that are unchanged reach the fetus more rapidly than drugs with a low fat solubility, which are ionized. Teratogenic agents usually affect organ systems at very specific points in development. The heart, central nervous system, palate, and ear are most commonly affected system and organs due to careless choosing drugs in pregnancy. Prescribing needs to consider teratogenic period like the pre-implantation and pre-somatic stages, from "0 to 31 days" following conception, drugs exert an "all or- none effect". If a toxic exposure occurs between day 31 and 81, the pregnancy either survives the insult without harm, or terminates. After 81, organs growth continues but malformation due to a maternally ingested medication is less likely. The preimplantation and pre-somatic stages, from "0 to 18 days" following conception, drugs exert an "all or- none effect"<sup>4</sup>.

Therefore in the USA Food and Drug Administration (FDA) classify the drugs for use in pregnancy using 5-letters system (drug categories) as follows for drug use in pregnancy. A = adequate controlled studies in pregnant women fail to demonstrate a risk to the fetus. Very few drugs in this category. B= "Best" No risk seen in animals, but no controlled trials in pregnant women. C= "Caution "Adverse fetal effects in animals, no controlled trials in humans. Most drugs are category C. D="Danger "Evidence of human fetal risk should be reserved for life-threatening disease. X= strong evidence of fetal abnormality, No therapeutic indication in pregnancy. Teratogenic Drugs; "Most Teratogenic FDA-approved medications are in categories D or X, some drugs in C."

A drug is identified as a teratogen if exposure in utero cause directly or indirectly, structural or functional abnormalities in the fetus or in the child after birth. One example is the beta blockers (most notably atenolol), which have been associated with intrauterine growth retardation (IUGR),<sup>5,6</sup> probably due to increased fetal and uteroplacental peripheral vascular resistance and reduced placental blood flow.

Diethylstibestrol which was used to prevent recurrent miscarriage is now known to cause transplacental carcinogenicity<sup>7</sup>, in utero exposure is associated with problems in later life such as infertility in both female and male offspring and a rare form of vaginal cancer<sup>8</sup>.

Neuropsychological and behavioral abnormalities may also occur after drug exposure. Some anti-epileptic drugs and drugs of abuse have been associated with learning and behavioral problems following in utero exposure<sup>9,10</sup>.

Drugs like analgesics used in pregnancy for the relief of backache, leg cramps, and abdominal pain that arise due to both physical and physiological changes in the mother. All trimester of pregnancy may have associated with different types of pain. Paracetamol seems to be safest for use during pregnancy, among all the analgesics, which is a category B. NSAIDs are safe in the 1st and 2nd trimesters (cat-B) but are best avoided during the last trimester (cat- D). Opioids can cross the placenta and may cause respiratory depression in the newborn. Prolonged use may also lead to withdrawal symptoms in the infant. Both NSAIDs and CoxII inhibitors inhibit the synthesis of Prostaglandin's and may result in the premature closure of the fetal ductus arteriosus, leading to fetal pulmonary hypertension.

Drugs under category; B - (Paracetamol), B/D - (Diclofenac, Diclofenac sodium & Misoprostol, Aceclofenac, Ibuprofen, Indomethacin, Ketoprofen, Naproxen, Ketorolac, Tromethamine, Meloxicam Prioxicam), C-Codeine+ paracetamol, Opioids/Opioid-related-Pethedine Morphine Tramadol, Timololandunder category C/D- Aspirin, Mefenamic, COX-II Inhibitors-Celecoxib, Rofecoxib, Valdecoxib needs to be choose approximately<sup>11</sup>.

Heart burn is a common complaint in pregnancy because of relaxation of the esophageal sphincter. The anti-ulcerative drugs are used during first trimester of pregnancy, when pregnancy is more complicated by vomiting. B- Ranitidine, Famotidine, Pantoprazole, Lansoprazole, Esomeprazole Rabeprazole-Omeprazole. X- Misoprostol and Domperidone.

The other group of drugs like e.g. (Category-B) Tiemonium Methylsulphate, Drotaverine. C- Hyosinebutylbromide, Mebeverine, Metoclopramide.

Drugs acting on rectum and colon; Category (B/D)-Mesalazine, Salfasalazine, Tegaserod also be used carefully.

The anti-emetic drugs; Ginger appears safe and effective easing nausea in pregnancy (on trial). A-Pyridoxine. B-Cyclizine hydrochloride, Cyclizine lactate, Meclizine hydrochloride, Metoclopramide, Diphenhydramine, Ondansetron. C- Chlorpromazine hydrochloride, Prochlorperazinemaleate, Promethazine theoclate<sup>12</sup>.

Sulfasalazine and other 5-ASA compounds such as mesalamine, balsalazide and olsalazine do not appear to increase complications or harm the fetus. Sulfasalazine may cause nausea and heart burn. As sulfasalazine lowers folic acid levels, women should be on at least 2 mg of folic acid daily. Women can breastfeed while taking 5-ASA compound.

Prednisolone and other corticosteroid are low risk during pregnancy. Antibiotic should be avoided during pregnancy. Because thalidomide can cause birth defects and fetal death, it should always be avoided during pregnancy.

Immunomodulators, such as Azathioprine, 6-mercaptopurine and cyclosporine A appear low risk during pregnancy in standard doses. Both men and women should avoid methotrexate.

Most biologics such as infliximab, adalimumab and certolizumab are considered low risk. They also do not appear in breast milk.

As Antibiotics are commonly used to treat or prevent infection in pregnancy. B-Cloxacillin, Cefo-taxime, Cefixime, Ampicillin, Amoxicillin + Clavulanic acid, Nitro-furantoin, Cephalosporins, sulfonamides, Penicillin's, Erythromycin, Clindamycin, Azithromycin. D-- Tetracycline, Doxycycline, Ciprofloxacin, Lomefloxacin, Gatifloxacin, Ofloxacin, Norfloxacin. C/D-- Cotrimoxazole. Aminoglycosides; D- Gentamycin, Streptomycin, Tobramycin, Amikacin, Kanamycin. Antimalarials drugs; C- Chloroquine, Mefloquine, Primaquine, Sulphadoxine +pyrimethamine. Anthelmintics drugs; C- Pyrantel, Albendazole, Levamisole, Mebendazole. Antiviral drugs; BAciclovir, C--Lamivudine, Interferon beta, Interferon gama.

The following group of drugs are indicated like tranquilizers demands careful administration during pregnancy when the patients are very nervous in case unwanted pregnancy. Pregnancies, which are associated with hyper-emesis gravidarum, toxaemia of pregnancy. Benzodiazepines; Are most commonly used anxiolytic and hypnotic. D-- Diazepam, Lorazepam (oral + parental), Midazolam (oral + parental), Nitrazepam, Bromazepam, Alprazolam, Phenobarbital. Anticoagulants; Pregnancy itself is a hypercoagulable condition, due to increase level of fibrinogen, VII, X factors. It is indicated in pregnancies associated with prosthetic heart valve, previous history of deep venous thrombosis. C -- Heparin, Protamine sulfate. D- Warfarin. X- Coumarin. Cough syrup; C-Dextromethorphan, Dextroamphetamine.

Laxatives: Constipation is an effect of physiological changes during pregnancy, Mechanical obstruction by the gravid uterus. Reduced motility because of smooth muscle relaxation> (Progesterone). Increased water absorption from the colon (>Aldosterone). B-Lactulose, Bisacodyl, Magnesium Hydroxide, Magnesium Sulphate, Magnesium carbonate. C-- Magaldrate. Pregnancy with pituitary tumour; B-Bromocriptine, Carbergoline.

Antidiabetic drugs: Pregnancy is associated with gestational diabetes mellitus, clinical diabetes mellitus condition. Pregnancy is associated with increase peripheral resistance to insulin, primarily mediated by human placental lactogen, oestrogen, progesterone, and cortisol. Insulin resistance is increases as pregnancy advances. B-- Acarbose, Metformin, Pioglitazone. C- Rapaglinide, Pioglitazone, Rosiglitazone, Glibenclamide, Glimepride, Glipizide, Insulin.

Antihypertensive drugs: Pregnancy with toxaemia is a common medical problem. Pregnancies are associated with toxaemia, essential hypertension. B- Methyldopa. C-Amlodipine, Nifedipine, Varapamil, Ramipril, Lisinopril, Captopril, Enalapril, Labetalol. D-Atenolol.

Diuretics: Usually prescribed, when pregnancies are associated with Eclampsia with pulmonary edema, anasarca. B- Amiloride + hydrochlorothiazide. B/D-Amiloride. C-Spironolactone, Acetazolamide, Furosemide. Bleeding disorder: C-Aminocaproic acid.

Antifungal drugs: Usually required, when pregnancy is associated with diabetes mellitus. B- Clotrimazole. C-Nystatin, Griseofulvin, Fluconazole, Miconazole (topical +vaginal).

Anti-allergy drugs: B- Cetrizine, Loratadine. Vitamins/ Iron; A-- Vit D, Vit E, Thiamine, Folic acid, Ascorbic acid. B-Calcium. C- Iron.

Tocolytic drugs: B- Retordine, Magnesium Sulphate.

Hormones: Hormones are sometimes required to prevent Abortion, Systemic Lupus Erythrometosus. X-Estrogen (All categories), Progestins (except megestrol and norethindrone), Danazol, Misopristol, and Raloxifene. C-Coticosteroids. D-Mifepristone.

Antiepileptic drugs: Pregnancy with epilepsy has an increased risk of malformation and further increased by taking anti epileptic drugs. C- Carbamazine. D- Phenytoin, Phenobarbitone, Valproate.

Anti-thyroid drugs: When pregnancy is associated with hyperthyroidism. D- Propythiouracil, Carbimazole, Methimazole.

Antineoplastics drugs: X- Flurauracil, Methotrexate.

Anti-tubercular drugs: B- Ethambutal. C-Isoniazid, Pyrazinamide, Rifampicin, Rifampicin +Isoniazid. D--Streptomycin Antidepressant drugs; C- Imipramine, Fluoxetine, Escitalopram, Amitriptyline, Nortriptyline.

Antidysentry drugs: B-Metronidazole, Nitazoxanide<sup>13</sup>.

## Conclusion

Most pregnant women required medicine. Drugs use in pregnancy remains clear, simple, and straightforward and should have clear and specific indications for drug use. Maternal and fetal benefit should be evaluated unless use of drug should be stopped. 50% of pregnancies are unplanned, it is important to minimize exposure to unnecessary medications in reproductive aged women regardless of their plan for pregnancy. During pregnancy, each medication must have the maternal and fetal risks and benefits are to be evaluated to determine when the medication is indicated.

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# Live Healthy Full Term Ovarian Pregnancy

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## Abstract

Primary ovarian pregnancy is a rare entity, constituting about 0.5% to 1% of all ectopic pregnancies. We present a case of left ovarian ectopic pregnancy in a 40 years old female, who was admitted at Diabetic Association Medical College Hospital, Faridpur with the complaints of irregular per vaginal bleeding for six months followed by amenorrhea for last five months. She also noticed that increasing abdominal distension and discomfort, increased frequency of micturition. Clinically she was pale with pulse of 90/min and blood pressure of 120/80 mmHg. The abdomen was distended of 36 weeks size and tenderness present. Grips could not be assessed properly. The vaginal examination revealed closed cervix with mildly tender fornixes. The clinical diagnosis of full term pregnancy with abnormal presentation was made. On investigation full term pregnancy with breech presentation by USG were detected. Pre-operative diagnosis of term ovarian ectopic pregnancy still remains a challenge in spite of current medical advances.

Key words: Ovarian Ectopic pregnancy, Full term healthy fetus.

## Introduction

Ovarian pregnancy is defined as the implantation of the conceptus on the surface of the ovary or inside the ovary, away from the fallopian tube. The first reported case live full term ovarian pregnancy was reported in the Indian Journal of Obstet and Gynaecol on 1970<sup>1</sup>. Ectopic pregnancy is common admitted patient in our hospital. But ovarian pregnancy is the rarest form. Most of them are tubal within the fallopian tube (tubal about 98%). The frequency of ovarian pregnancy is less than a tubal pregnancy and constitutes 0.5-1% of all ectopic pregnancies<sup>2</sup>. These cases present with ruptures with intra abdominal hemorrhage and other consequence.

Ovarian pregnancy may be primary when ovum is fertilized in the peritoneal cavity and then implanted in the ovary. In case of secondary ovarian pregnancy fertilization occurs in the fallopian tube then there is tubal abortion which later on become implanted on the ovary. This condition is difficult to diagnose before surgery<sup>3</sup>. Transvaginal ultrasound has proved to be an invaluable tool in the diagnosis of ovarian ectopic pregnancy<sup>4</sup>.

Here, we report a patient with an ovarian pregnancy who was diagnosed after laparotomy.

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#### **Case report**

A 40 years old female patient admitted with a history of 5 months amenorrhea with increasing abdominal distension and discomfort, increased frequency of micturition. She had 5 earlier full term and normal deliveries, the last being 4 years earlier. She used injection for contraception for about one year. She also noticed irregular per vaginal bleeding lasting for 6 months after stopping the injection. Clinically she was pale with pulse of 90/min and blood pressure of 120/80 mmHg. The abdomen was distended of 36 weeks size and tenderness present. Grips could not be assessed properly. The vaginal examination revealed closed cervix with mildly tender fornixes. The clinical diagnosis of full term pregnancy with abnormal presentation was made. On investigation Hb%-45%, blood group A<sup>+ve</sup>, full term pregnancy with breech presentation by USG were detected. Due to increasing abdominal discomfort emergency LUCS was proceeded with a Pfannenstiel incision. After opening the peritoneum the uterus was found normal looking bulky size and a large cyst arising from the left ovary. The incision was enlarged by midline extension, then the cyst was tried to pull out through that wound. The cyst wall ruptured with a miracle finding of a full term healthy male baby within it. The baby and placenta were completely enclosed within the cyst wall. Ovarian pedicle contained the large vessels supplying the fetus. Then ovarian mass containing the placenta removed ligating at the pedicle.



Fig: Ovarian Pregnancy.

## Discussion

The conditions most commonly confused with ectopic ovarian pregnancy, both clinically and pathologically are ruptured hemorrhagic corpora lutea, "chocolate" cysts and ruptured tubal ectopic pregnancies. Therefore, the Spiegelberg criteria<sup>5</sup> are important to diagnose ovarian pregnancy. All these criteria were fulfilled by the case presented here. Both tubal and ovarian pregnancies are believed to occur more frequently in the users of intrauterine contraceptive devices. Though the uterine implantation of the fertilized ovum is sharply reduced by the use of such device, there is no protection against pregnancies occurring elsewhere. The patients presented here had not used IUCD. However, among 22 patients presented in Indian literature, two had used  $IUCD^{6, \tau}$ . Review of the Indian literature shows no definite age group<sup>8</sup>, the range being between 21 and 43 years in the 22 reported cases of primary ectopic ovarian pregnancy. The mean parity of 3 was observed with only two ovarian pregnancies, occurring at first time and four at second time<sup>9-11</sup>. No predilection to any side was seem. The period of amenorrhea varied from none to 14 months<sup>12,13</sup>. In the two instances, the pregnancy continued to full term with one healthy newborn being delivered<sup>14,15</sup>. No definite relationship as regards the interval from an earlier pregnancy was observed. It is, therefore, obvious that primary ectopic ovarian pregnancy is probably a random and a chance occurrence. Out of the modern methods, ultrasonography, laparoscopy and estimation of human chorionic gonadotrophic (HCG) levels have been used in conjunction with repeated clinical evaluation in the diagnosis and management of extra uterine pregnancies<sup>16</sup>,

Bradley et al<sup>18</sup> reported the 'classic' findings which differentiated the double ring of the decidua parietalis and capsularis of an intrauterine, pregnancy-gestational-sac from that of a single ring of the pseudo gestational sac of an ectopic pregnancy. Subsequent studies suggested that these 'classic' findings were not specific for ectopic pregnancy as they were often proved surgically to be tuba-ovarian or appendicular abscesses<sup>19</sup>. It became clear that actual definitive demonstration of extra uterine gestational sac was rare and neither specific nor sensitive enough to be relied on to diagnose this life threatening process $^{20,21}$ . The HCG levels of over 6500 m IU/ml with ultrasonographic suggestion of presence of a gestational sac indicates continuing intrauterine pregnancy since the coexistence of an intrauterine pregnancy and an ectopic pregnancy is very rare, the current approach of many sonographers is to virtually exclude an ectopic pregnancy by demonstrating an intra-uterine, pregnancy. Therefore, if the patient is acutely ill, laparoscopy may be the procedure of choice. If the patient's condition is stable, the clinician may choose to observe the patient, follow serial quantitative Ii-HCG levels and obtain a follow-up sonogram to sac if definitive signs of an intrauterine pregnancy appear<sup>22-24</sup>.

## Conclusion

Ovarian ectopic pregnancy is a very rare condition not only difficult to diagnose but also to distinguish from tubal

ectopic pregnancy. Management is essentially surgical and early diagnosis and intervention can prevent mortality.

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# Lutembacher Syndrome

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## Abstract

Lutembacher syndrome a rare complex heart disease comprises ASD (secundum) with mitral stenosis. ASD (Secundum) usually congenital but may be iatrogenic during IAS puncture during PTMC procedure. MS usually rheumatic origin. Our Patient Mrs. Fulmala, 60 yrs. old, housewife, non hypertensive, non diabetic admitted in DAMCH cardiac unit on 10.11.12 with the complaints of progressive respiratory distress for ten years, cough for 5 yrs, chest pain for 2 yrs. Initially shortness of breath was in NYHA class II & at present it in NYHA class-III. She had a previous history of rheumatic fever in early childhood. There was history of recurrent attack of rheumatic fever. Subsequently she developed MS from rheumatic carditis. ASD was congenital in origin. If diagnosis could be done earlier, surgical closure of ASD with replacement of mitral valve bears a good prognostic value. Our patient is in elderly age & already developed pulmonary hypertension, so operative procedure is not suitable. So, the patient should be kept in conservative treatment.

Key words: Lutembacher syndrome, atrial septal defect, mitral stenosis, septum primum, septum secundum.

#### Introduction

Cross finger Lutembacher syndrome- is defined as a combination of mitral stenosis & left to right shunt at the atrial level. Typically the left to right shunt is an atrial septal defect (ASD) of the ostiumsecundum variety<sup>1</sup>. Both these defects ASD & MS, can be either congenital or acquired. In 1916, Lutembacher described his first case of this syndrome involving a 61 years old woman. In the current era of mitral valvuloplasty for acquired mitral stenosis, residual iatrogenic ASD secondary to transseptal puncture is more common than congenital ASD, as is the combination of ASD & mitral stenosis<sup>2</sup>. Incidence of ASD in-patient with MS is  $0.6 - 0.7\%^3$ . Syndrome is more common in females than males. Lutembacher syndrome can present at any age. Cases have been diagnosed in the seventh decade of life. Heart disease comprises- congenital heart disease & acquired heart disease. There are many heart diseases which are very complex form that is combination of congenital & acquired in origin. Lutembacher syndrome is one of the complex heart diseases & its incidence is very rare<sup>4</sup>.

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#### Case

Mrs.Fulmala, 60 yrs. old, house wife, Hindu, nonhypertensive, non-diabetic hailing from Gholmazi, charmuguria, Madaripur, admitted in DAMCH- cardiac unit, Faridpur on 10.11.12 with the complaints of progressive respiratory distress for ten years, cough for 5 years, chest pain for two years. Initially shortness of breath developed after moderate exertion (NYHA- class II). But now it appears after minimal exertion (NYHA- class III). Patient also complaints recurrent attack of cough, frothy sputum, chest pain with radiation to left arm. She came from poor social-economic status. On examination she is ill looking, on propt up position, mild anemic, engorged pulsatile neck vein, palpable tender liver, leg odema, CVS examination reveals pulse-110/m, regular, BP- 125/80 mm. Hg, apical impulse in left 6th intercostal space, left parasternal heave present, P<sub>2</sub> palpable, S<sub>1</sub>- louder, P<sub>2</sub>- louder, mid diastolic murmur in mitral area, systolic murmur in upper leftpara sternal area, respiratory system examination reveals- crepitation in both lung bases. Other systemic examination reveals- no abnormalities.

## **Investigations findings**

#### ECG findings-



- ➢ Sinustachycardia.
- ➢ Incomplete RBBB.
- $\vdash$  T' wave invertion in L<sub>II</sub>, L<sub>III</sub>, AVF, V<sub>1</sub>-V<sub>4</sub>



#### X-ray chest PA view-

- E Cardiomegaly.
- ➢ Pulmonary conus full.
- ➢ Features pulmonary congestion.

#### Laboratory investigation:

- a) Blood sugar FBS-5.5 mmol/l
- b) Serum creatinine
- 0.9 mg/dl
- c) Lipid profile: Cholesterol - 300 mg/dl HDL - 45 mg/dl LDL - 130 mg/dl TG - 260 mg/dl

#### ECHO cardiogram (1-3)



Fig. 1



Fig. 2



## Fig. 3

MV- Thickened, calcifled, reduced orifice. MVA- 0.8 cm<sup>2</sup>. IAS Deficit.

Color flow mapping MV- Mosaic flow seen from LA to LV. ASD - Seen. Mosaic flow seen from LA to RA, then to RV in a butterfly fashion.

Final impression- MS (Severe) with ASD (Secundum) with PH.

Diagnosis: Lutem Bacher Syndrome

## Discussion

Incidence of ASD in-patient with MS is 0.6 0.7%. It is found more in female than males. Syndrome can present at any age. Cases have been diagnosed in the seventh decade of life. Journal of Diabetic Association Medical College 2017;1(1)37-39

Lutembacher's original case was a 61 years old woman who had been pregnant 7 times. Early diagnosis& surgical treatment bears a good prognostic value. If a patient is diagnosed at late stage, pulmonary hypertension & heart failure develops & the prognosis is bad<sup>5</sup>. If the patient is diagnosed earlier before the development of PH & heart failure, ASD closure with mitral valve replacement bears a good prognosis & prolongs survival. Our patient, Mrs. Fulmala is an elderly patient & already develops pulmonary hypertension, so operative treatment is not possible & the patient is kept under conservative treatment, optimizing medical therapy with adequate control of heart failure.

## Conclusion

Lutembacher's syndrome is a rare, complex heart diseaseconstellation of both congenital & acquired condition of the heart. Early diagnosis & operative treatment has a good prognostic value but late diagnosis & development of heart failure bears bad prognosis. Most of the patient dies subsequently due to heart failure, cardiac arrhythmias & thrombo-embolic cerebrovascular disease<sup>6</sup>. Early diagnosis & management can reduce morbidity & mortality.

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# "Cross finger flap," an effective way of managing volar surface defects in finger

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## Abstract

Soft tissue defects in the volar aspect of proximal and middle finger and fingertip following injury or infection always presents with difficulties in management and outcome. Sensible and durable coverage with preservation of flexible length and joint function are essential for a successful outcome. Cross finger flap is valuable and effective in resurfacing acute and long-standing defects in tips and volar surface of finger. Here a patient with a defect in the volar aspect of ring finger over the middle phalanx was managed using cross finger flap. Postoperative outcome was satisfactory.

Key words: cross finger flap, volar defect.

## Introduction

Cross finger flap has been introduced in the literature a long years before, since then many authors recognized the procedure as single best reconstructive method for resurfacing fingers with significant loss of soft tissue from the tip and flexor surface of the fingers<sup>3,4,5,6,8</sup>. Numerous authors have discussed various methods available for these purposes including allowing spontaneous re growth of skin over the defect, with or without the aid of traction on the skin, free skin grafts of various thicknesses, closure of the defect using adjacent soft tissue with or without shortening the digit and, closure with pedicle flap from a far. Each methods has it's advantages as well as it's disadvantages but none achieves complete restoration. Cross finger flap is indicated when bone or joint surfaces are exposed; when flexor tendons and occasionally extensor tendons are exposed, when there is need for soft tissue padding or when secondary reconstructions are indicated<sup>7</sup>.

## **Case report**

Md. Mintu Miah a 26 years old man presented with a defect in the volar aspect of right ring finger over the region of middle phalanx extending up to DIP measuring about 3cmX1.5cm with exposed flexor tendon and part of the DIP joint. He had a history of penetrating injury over the same region, which later became infected and sloughed. Over the time the wound gradually increased in size with exposing tendons and joint, putting the patient in tension of loosing the finger. After admission in Diabetic Association Medical College Hospital, proper examination and evaluation was done and decision was taken to cover the defect with cross finger flap.

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## **Operative procedure**

Operation was done under general anaesthesia and tourniquet to control bleeding. The wound margins were excised to make it rectangular, with the long axis parallel to the long axis of the finger. Finger was placed against the donor middle finger to determine where to locate the base of the proposed flap. The flap was raised a little bit larger than the defect and applied to recipient area and sutured with fine thread.

The donor area was covered with split thickness skin graft and a tie-over dressing was applied. Post operatively the hand was secured and immobilized in a short arm volar cast with a collar sling<sup> $\circ$ </sup>.



Fig: Pre-operative picture

## Post operative management

Patient was discharged a day post operatively with medication and after 2 weeks the flap was detached from the donor site and the margins trimmed and sutured. Gradual motion of the finger was encouraged.



Fig. 1: Two weeks after operation the flap detached

## **Follow Up**

A month after surgery the patient came to me with a good hand function and full satisfaction.





Fig. 2: One month after surgery

## Discussion

In spite of the weight of the data, the cross finger flap has still not achieved wide popularity among many hand surgeons. The reasons for these is not well identified, but the limitations relates the procedure is lack of substantial subcutaneous tissue, the limitations of size of the donor tissue, the presence of a disturbing dorsal donor site and sometimes presence of hair in the flap which is unaesthetic in volar surface and is not applicable in children under seven years of age and old people with arthritis or other degenerative conditions<sup>1,2,10,11</sup>. In properly selected patient and carefully performed procedure provides a superior means of reconstruction for the injured finger with loss of significant soft tissue. Overall, patient satisfaction is quite rewarding.

## Conclusion

Cross finger flaps are valuable procedures and have withstood the tests of time and wide experience. With expanding time and experience many variations have been devised by imaginative surgeons to make the technique unique in the management of the challenging defect.

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