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Informations about Prime Medical College, Rangpur

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

The objectives of the institute are :

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

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

Editorial

EFFECTS OF LONG TIME USE OF COMPUTER ON HEALTH.

Naher LAD

It is the time to pay attention to the health related hazards that may develop due to long time use of computer. In Bangladesh use of computer has increased with introduction of more advanced IT equipment in different educational. research and financial institutions¹. The use of personal computer has began in late 1980s and we are using computer for academic activities, recreation purpose, professional work etc, which also has increased the number of its users^{1, 2}. Around the world people of different profession like accountant. architect, bankers, engineers, academicians, secretaries and students are using computers². of computer has Use increased SO tremendously that about 45 to 70 million people are using computers globally and spending hours on the monitor of computer². People of all age group including children are now have become dependant on computer in different issues of their daily life3.Several studies have observed that prolong use of computer is associated with many health related problems like computer vision syndrome, which includes eyestrain, burning sensation, blurred vision, gritty sensation, dry eyes, watery eyes, headache and neck pain⁴. The major factors causing eyestrains when using computes are glare, luminance, contrast reflections on screen, distance between eye & screen and readability of the screen⁵.

Again, musculoskeletal problems such as neck pain, back pain shoulder problem and carpal tunnel syndrome are also demonstrated by several studies due to prolonged use of computer ^{6,7,8}. Not only that using computer for long time leads to repetitive strain injury (RSI) which includes tightness, discomfort, stiffness, soreness or burning in the hands, wrists, fingers, ; tingling, coldness or numbness in the

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hands as well as loss of strength and coordination⁹. Musculoskeletal disorders occur due to ergonomic factors such as mouse use, prolonged period of sitting, uncomfortable postures and psychosocial factors⁸.

Moreover, prolong use of computer for browsing internet may causes online addiction. The symptoms are feeling of guilt, anxiety, depression, dishonesty, euphoric feelings when in front of the computer, unable to keep schedules, no sense of time, isolation, defensiveness, drop from duty and agitation etc¹⁰.

Like adult, children and adolescent also suffer from many of the same symptoms related to computer use³. Playing games on computer for long periods especially by children can leads to childhood obesity too ¹¹.

Numerous studies have been conducted world wide to address the extent of health hazards of prolong exposure to computer^{2,3,4,5,6,8,12}. However all are preventable if the users take some preventive measures in advance ⁹.

It has been observed that RSI illnesses are related to improper use of keyboard and mouse. They should be placed close together at about the same height and wrist should be kept straight and inline with the forearms approximately parallel to the floor and keyboard should be used with light touch. Again, while typing both hands should be used ¹³. To avoid eye straining it is recommended to keep monitor at a comfortable distance and inline with the eyes to avoid head tilt backwards while looking at the monitor. Brightness and contrast should be adjusted so that it becomes comfortable for vision as it can cause blurred vision ¹³.

Person using computer must sit such a way that feet should be placed firmly on floor with hip slightly flexed to avoid back pain. It is recommended to take short break frequently, every fifteen minutes by getting up from chair and do a few excises to loosen the neck, shoulder and back muscles. Again, it is recommended to use adjustable chair with backrest of 6 to 9 inches high and at least 12 inches wide in the lumber region to make it comfortable to sit on¹³.

Millions of people around the world are using computer now a days, which has made our daily activities much easier and even in our country we are not far behind in using computer. As computer related injuries includes a wide range of health hazards, so emphasis should be given to this emerging issue to remain healthy and fit in life.

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Original article

Peroperative tear to Surgical gloves & risk of Wound Infection in a tertiary care Hospital in Bangladesh.

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ABSTRACT

Introduction: Post-surgical wound infection is a crucial factor in surgical practice. During operation, skin-borne pathogens from staff hands are particularly susceptible to transfer. Consequently, all surgical staff wears sterile gloves as a protective barrier to prevent hand-to-wound contamination during operations. Somehow if gloves are perforated, the barrier breaks down and germs may be transferred to surgical site. Objective: This study has been conducted to observe any relation of surgical site infection with gloves perforation during surgery. Method: This cross sectional comparative study was carried out in the department of Surgery in North East Medical College Hospital, Sylhet from 1st July 2012 to 30th June 2014 with prior permission from ethical committee of North East Medical college. For this total number of 100 patients of clean & clean contaminated operations were selected. Patients were randomly divided into two groups, Group-I having tear to surgical gloves during operation and Group-II having no tearing to the surgical gloves during operation. Tear to the surgical gloves were diagnosed by presence of blood in the hand after removing gloves. For statistical analysis independent sample "t" test and chi square test were performed by computer based software SPSS- 16.0 version for windows. P value <0.05 was considered as significant. Results: There were no statistically significant (p>0.05) difference in outcome between two groups who had intact gloves & who had torn gloves during operation. Conclusion: Teat to surgical gloves during operation does not cause wound infection. Organisms probably escaped from glove punctures are insufficient numbers to be a serious hazard in a clean wound with adequate local resistance.

Key words: Surgical site infection, surgical glove, clean operation, clean contaminated operation.

INTRODUCTION

Post-operative wound infections are the second most common nosocomial infection and are a major cause of post operative morbidity and

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resource utilization¹. Infection rate in clean surgery is 1-2%, in clean contaminated surgery is <10%, contaminated surgery is 15-20% and in dirty surgery is $<40\%^2$.

A surgical infection occurs when micro-organisms from the skin or from environment enter through incision in order to carry out the operation. These infections can develop at any time preferably after two to three days of surgery until the wound has healed³.

Wound has its own critical inoculums level, which is about 105 organisms⁴. Infection in surgical wounds results from imbalance between the number and extent of bacterial contamination and the defense mechanism of the patient. It is also related to patients advanced age, anaemia, jaundice, malnutrition, diabetes, uraemia, malignant neoplasm, use of steroid, type of operation, type of incision and presence of foreign material⁵.

Despite the substantial effort deployed to maintain asepsis during surgery, the risk of transfer of pathogens remains. Pathogens may be transferred from the surgical staff to patients^{6,7}, vice versa^{8,9} and also contact with the skin or blood. In surgical settings, skin-borne pathogens on staff hands are particularly susceptible to transfer. Consequently, all surgical staff wears sterile gloves as a protective barrier to prevent hand-to-wound contamination during operations. When gloves are perforated, the barrier breaks down and germs are transferred. With the growing awareness among operating room staffs of their risk of exposure to disease from patients. primarily human immunodeficiency virus and hepatitis B virus,^{10,11} gloves have begun to be regarded as a requirement for their own protection. Therefore, surgical gloves is an effective germ barrier for both patients and surgical staff.

In 1915, Brewer¹² studied the impact of asepsis on the risk of SSI and reported that rigorous observation of surgical staff's aseptic practices could reduce the rate of SSI in clean wounds. He concluded that a heightened awareness of the importance of asepsis and more effective teamwork in the creation of a low-risk environment⁵ could therefore reduce the risk of surgical site infection (SSI). Now a days, strict rules are in place to maintain asepsis in all types of surgical interventions. Despite the precautions taken to prevent gloves perforation, the risk of such accidents is still relevant. Several studies have addressed the frequency of breaks in the gloves barrier^{13,14,15}. In our country, a few research works have been done in this perspective. Therefore, this study was carried out to observe any relation of surgical site infection with the gloves perforation during surgery in our country.

MATERIALS AND METHODS

This cross sectional comparative study was carried out in the department of Surgery in North East Medical College Hospital, Sylhet

from 1st July 2012 to 30th June 2014. For this total number of 100 patients of clean & clean contaminated operations were selected. After the enrollment of patients into study population, they were divided randomly into group-I and group-II. The patients who have operations and gloves were teared, which was diagnosed by presence of blood in the hand after removing glove were included in group-I and the patients who had operations but gloves were intact included in group-II. The study includes both sexes and age range was between 18-60 years and dirty operations, emergency operations, patients with DM, uraemia. immunosupression, having corticosteroid therapy, BMI <18 or >25 were excluded from the study. A sample of 50 in each group was calculated considering 5% significance level, 9% precision level and considering the incidence of 10% wound infection in clean-contaminated operation¹⁶. all the subjects were informed about the purpose of data collection and written consent had been taken.

The study was conducted with prior permission from ethical committee of North East Medical College. All the patients were assessed before operation by history taking. physical examination and necessarv investigations. Hb%, RBS, serum urea and creatinine were estimated of each patient to exclude anaemia, diabetes mellitus and uraemia respectively. Patients BMI were calculated by measuring height and weight of the patient. Patients were searched for any focal source of sepsis. They were asked to take preoperative shower before the day of operation. Shaving of the patients were done on operating table. Skin was prepared by 10% povidone iodine in all cases. Other aseptic procedures during operations were performed in both groups by standard method.

Inj. Ceftriaxone (1 gm) was given to each patient intravenously 30 minutes before induction of anesthesia. After operation the patients who had clean operation got no further antibiotic and the patients who had clean contaminated operation had got Cap. Cefexim (200mg) twice daily for 3 days.

all cases diathermy was used for In haemostasis and drainage tube was inserted if necessary through a separate stab wound. Any discharge from the wound was collected and sent for bacteriological examination and antibiotic was selected according to culture and sensitivity report. Adequate postoperative analgesia was ensured and patients were encouraged for early mobilization. Patients were followed up on 3rd to 7th postoperative day and regularly examined for surgical site infection on the basis of ASEPSIS score16. For statistical analysis independent sample "t" test and chi square test were performed by computer based software SPSS- 16.0 version for windows. P value <0.05 was considered as significant.

RESULTS

The mean age of study and control group was 35.56 ± 10.88 and 40.44 ± 10.66 years respectively. There was no significant difference of age in both groups of patients (Table I).

Table	1:	Mean	(±SD)	age	distribution	of
patien	ts i	n both	groups	(N=1	00).	

Age (years)	Group-I (n=50)	Group-II (n=50)	x2
17 - 30	21.3 ± 10.10	22.1 ± 9.42	
31 - 40	36.4 ± 6.22	37.21 ± 7.11	0.0842*
41 - 50	43.6 ± 8.41	45.71 ± 3.47	
51 - 60	52.1 ± 3.21	54.21± 4.25	

Chi- sqaure test was done for comparison.

N= total number of patients, n= number of patients in each group,

Group-I= case, Group-II=control. *=p>0.05

In study group there were 27 (54%) male patients and 23 (46%) female patients. In control group there were 26 (52%) male patients 24 (48%) female patients (Fig I).





N= total number of patients, Group-I= case, Group-II=control.

Mean (±SD) BMI of study group patients was 19.72 (±1.73) and control was 19.76 (±1.06). The difference of mean BMI between the groups was not statistically significant (p>0.05). Again the mean haemoglobin level of study group of patients was 11.9 (±1.8) and control group was 12.1 (±1.5). The differences of mean haemoglobin level of both the groups was not statistically significant(p>0.05) (Table II).

Table II: Distribution of patients according to mean (±SD) BMI and haemoglobin level (N=100).

Parameters	Group-I n=50	Group-II n=50	t
BMI	19.72 (±1.73)	19.76 (±1.06)	0.2043
Hb%	11.9 (±1.8)	12.1 (±1.5)	0.0785

Students 't' test was done for comparison.

N= total number of patients.n= number of patients in each group,

Group-I= case, Group-II=control. P>0.05

Both groups of patients were distributed according to the operation. In the study group; 23 patients had cholecystectomy, 16 patients had herniotomy & herniorraphy, 4 had excision of fibroadenoma of breast, 2 had choledocholithotomy and 5 had interval appendicectomy. In the control group; 21 patients had cholecystectomy, 18 patients had herniotomy & herniorraphy, 4 had excision of fibroadenoma of breast, 3 had choledocholithotomy and 4 had interval appendicectomy (Table III).

Table III: Distribution of patients according to the types of operation in both groups (N=100).

Operation	Group-I (n=50)	Group-II (n=50)	x ²
Cholecystectomy	23	21	
Herniotomy & herniorraphy	16	18	
Exicision of fibroadenoma of bre	^{ast} 4	4	1.0079*
Choledocholithotomy	2	3	
interval appendicectomy	5	4	

Chi- sqaure test was done for comparison.

N= total number of patients, n= number of patients in each group,

Group I= case, Group II=control.

*=p>0.05

Operations were distributed according to the length of incision. Among the study group; 15 patients had 7-8 cm incision, 14 had 9-10 cm, 12 had 11-12 cm, 6 had 13-14 cm and 3 had15-16 cm. Among the control group; 16 patients had 7-8 cm incision, 16 had 9-10 cm, 12 had 11-12 cm, 4 had 13-14 cm and 2 had 15-16 cm. No significant (p>0.05) difference was found between the lengths of incision of both groups of patients (Table IV).

Table IV: Distribution of patients according to the length of incision in both groups (N=100).

Length of incision (cm)	Group I	Group II	x ²
7-8	15	16	i a
9-10	14	16	
11-12	12	12	0.9773*
13-14	6	4	
15-16	3	2	

Chi- sqaure test was done for comparison.

N= total number of patients, n= number of patients in each group,

Group I= case, Group II=control.

*=p>0.05

In this study both groups of patients were distributed according to the duration of operation. Among the study group; 21 patients had duration of operation 41-45 minutes, 6 had 46-50 minutes, 14 had 51-55 minutes, 3 had 56-60 minutes and 6 had 61-65 minutes. Again, among the control group; 18 patients had duration of operation 41-45 minutes, 9 had 46-50 minutes, 14 had 51-55 minutes, 4 had 56-60 minutes and 5 had 61-65 minutes. No statistical significant (p>0.05) difference was found between the duration of operation of operation of operation of both groups of patients (Table V).

Table V: Distribution of patients according to the duration of operation in both groups (N=100).

Duration of operation (minutes)	Group-I	Group -II	x ²
41-45	21	18	
46-50	6	9	1 7110*
51-55	14	14	1./118*
56-60	3	4	
61-65	6	5	

Chi- sqaure test was done for comparison.

N= total number of patients, n= number of patients in each group,

Group I= case, Group II=control.

*=p>0.05

Categorization of wound infection 100 patients was done and 81 patients had satisfactory healing and 19 patients had disturbance of healing to severe wound infection (9 patients in group I and 10 patients in group II) (Table VI).

Table VI: Distribution of patients accordingto wound infection in both groups (N=100).

Condition of wound	Group-I (n=50)	Group-II (n=50)	Total (N=100)
Satisfactory healing	41 (82%)	40 (80%)	81 (81%)
Disturbance of healing	4 (8%)	5 (10%)	
Minor wound infection	3 (6%)	2 (4%)	10 (100/)
Moderate wound infection	n 2 (4%)	3 (6%)	19 (19%)
Severe wound infection	0 (0%)	0 (0%)	

 $N{=}$ total number of patients.n= number of patients in each group,

Group-I= case, Group-II=control.

Patients of both groups were distributed according to preoperative hospital stay. Among the study group; 4 patients had preoperative hospital stay 6-10 days, 16 had 11-15 days, 12 had 16-20 days, 12 had 21-25 days, 4 had 26-30 days and 2 had 31-35 days. Among the control group; 4 patients had preoperative hospital stay 6-10 days, 12 had 11-15 days, 14 had 16-20 days, 14 had 21-25 days, 4 had 26-30 days and 2 had 31-35 days. There was no statistically significant (p>0.05) difference between the hospital stay of both groups of patients (Table VII).

Table VII: Number of patients according to the preoperative hospital stay(N=100).

Preoperative	Group I	Group II	x ²
hospital stay (days)	(n=50)	(n=50)	
6-10	4 (8%)	4 (8%)	
11-15	16 (31%)	12 (24%)	1 /017
16-20	12 (24%)	14 (28%)	1.4917
21-25	12 (24%)	14 (28%)	
26-30	4 (8%)	4 (8%)	
31-35	2 (4%)	2 (4%)	

Chi- squure test was done for comparison. Values in parenthesis indicates percentage N= total number of patients, n= number of patients in each group, Group I= case, Group II=control. *=p>0.05

Wound infections of both groups of patients were compared. In the study group, 41 patients had satisfactory wound healing, 4 had disturbance of healing, 3 had minor wound infection and 2 had moderate wound infection. In the control group, 40 patients had satisfactory wound healing, 5 had disturbance of healing, 2 had minor wound infection and 3 had moderate wound infection. There was no statistically significant (p>0.05) difference of wound infection between the two groups of patients (Table VIII). Table VIII: Distribution of patients according to wound infection between 2 groups (N=100).

parameters	Group I (n=50)	Group II (n=50)	x ²
Satisfactory healing Disturbance of healing Minor wound infection Moderate wound infectior	$\begin{array}{c} 41\\ 4\\ 3\\ 1\end{array}$	40 5 2 3	1.1467

Chi- sqaure test was done for comparison.

N= total number of patients,

n= number of patients in each group,

Group I= case, Group II=control.

*=p>0.05

DISCUSSION

The potential for infection depends on a number of patient variables such as the state of hydration, nutrition and existing medical conditions as well as extrinsic factors, for example pre, intra and postoperative care. This often makes it difficult to predict for which wound infection has occured. Consequently the prevention of wound infection should be a primary management objective for all healthcare practitioners¹⁷. During operation if a perforation in the surgical gloves occurs that may cause additional factor of wound infection.

In this study, both study and control group of patients were distributed according to age and there was no significant difference of age variation between the groups. Again, regarding BMI and Hb% no statistical difference was found between the groups of patients.

In our study total infection rate was 19%. It is higher than the international standard. This may due to overcrowding of the hospital. In a study, surgical site infection rate was 3.03% in clean surgeries and 22.41% in clean-contaminated surgeries¹⁸.

In a study it has been observed that the small skin incision, if associated with prolong

operation time, may increase the overall insult in pediatric cardiac surgery¹⁹. So in this study some of the confounding variables like length of incision, duration of operation, preoperative hospital stay were compared between two groups of patients, which showed no significant difference between the groups. In a study, it was concluded that duration of operation is at least partially determined by hospital factors and consequently, should be used as a quality indicator to compare SSI infections between hospitals, rather than being used as a patient factor to adjust comparisons between hospitals²⁰.

In our study, we only compared the infection rate of patients having torn surgical gloves during operation with the infection rate in which no injury to surgical gloves has occured. No statistical significant difference was found between the groups. This findings is incontrast with a study, where the risk of developing SSI was significantly higher in surgical procedures in which gloves were perforated²¹. Again, some researcher suggested gloves perforation as a primary predictor of wound infection^{22,23}. However, in another study only 3 instances of SSI was related to punctured gloves among 150 cases²⁴. Again, in another study not a single incidence of wound infection has occurred in those patients where 11.6% of gloves were punctured during surgical procedure, which may be due to insufficient numbers of organisms to cause a serious hazard in a clean wound with adequate local resistance²⁵. In our study how frequently gloves perforation has occured during operation was not measured.

CONCLUSION

Form this study it may be concluded that tear to surgical gloves during operation does not cause wound infection. This may be due to number of organisms that escaped from gloves puncture was insufficient to cause a serious hazard in a clean wound with adequate local resistance. Again, this study was done in a limited scale. Further study with large sample size may give more conclusive findings.

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Original article

Serum Haemoglobin Status in Rural and Urban Women of Reproductive Age. Akther S¹, Sarker CR² and Ahmed N³.

ABSTRACT

Background: The population in Bangladesh is predominantly rural, where many of them live in remote areas and their socioeconomic condition is very low. As a result their nutritional intake is often inadequate. They also have incomplete knowledge about their reproductive life, physical wellbeing of health and bodies. Objectives: To compare serum haemoglobin status in rural and urban women of reproductive age. Methods: This cross sectional study was conducted in the outpatient department of model family planning clinic of Rangpur Medical College, Rangpur from July 2012 to June 2013 with prior permission from ethical committee of Rangpur Medcial College. For this a total number of 100 women were selected, among them 50 were apparently healthy urban women of reproductive age (Group A) and 50 were rural women of reproductive age (group-B). Blood was collected from each subject to detect haemoglobin concentration, that was measured by Sodium Lauryl Sulfate method. For comparison between the groups independent sample 't' test was performed by using SPSS versions 15.0 for windows. Results: Haemoglobin concentration was significantly decreased (p < 0.001) in rural women than that of urban women of reproductive age. Conclusion: From this study it may be concluded that rural women of reproductive age have low haemoglobin concentration compared to urban women of reproductive age.

Keyword: Haemoglobin concentration, Rural women, Urban women.

INTRODUCTION

Bangladesh is one of the most densely populated country in the world. In an area of 145,000 square-kilometers, nearly 861 people live per square kilometer1. Many of them live in remote areas and are subjected to lack of services such as education and health care.

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Among them women are the poorest in the rural population, especially when they are the sole head of their household. They often suffer from discrimination, few earning opportunities and their nutritional status is very low². They get married at an early age , about 57% by the age of 18 years and almost immediately become adolescent mother³.

Poor socioeconomic condition associated with a number of factors such as high parity, short birth interval, poor diet both in quantity and quality, lack of health care and nutritional awareness leads to maternal undernutrition4. Undernutrition is especially critical for women because inadequate nutrition causes not only havoc to her own health but also that of their children. Though the situation has improved in recent past but till now ural people are not alert to maintain the standard of sanitation and hygiene habits⁵. Therefore, hookworm infestation and under nutrition are leading causes of anaemia in rural people of our country⁶. But in urban areas they try to maintain better nutritional requirement, sanitation and hygine habit⁵.

Anaemia is a wide spread public health problem associated with an increased risk of morbidity and mortality especially in rural women⁷. Iron deficiency anaemia is one of the most common nutritional disorders and it has public health importance in developing countries like Bangladesh. It is the most common causes of nutritional anemia in adolescents and women of reproductive age, especially in rural area8. The world health organization has recommended the diagnosing point cut for anaemia in reproductive age of women as Hb concentration 12gm/dl of blood⁶.

Iron deficiency anaemia hinders normal functions in all age groups and reducing work performance. Maternal iron deficiency causes pregnancy outcomes, adverse impaired responses. immune gastrointestinal abnormalities, changes in the hair and nails. There are also observed in subjects with iron deficiency impaired thermogenesis, altered thyroid metabolism and changes in catecholamine turnover.

The effects of low haemoglobin status remain largely unexplored⁹. The main goal of this study is to assess hemoglobin status in rural and urban women of reproductive age.

This study will be helpful to improve haemoglobin concentration and iron status of women of reproductive age especially in rural area by increasing awareness and taking preventive measures.

MATERIALS AND METHODS

This Cross-sectional analytical study was carried out between July 2012 to June 2013 in Model Family Planning Clinic of Rangpur Medical College & Hospital, from the rural and urban women of reproductive age were 18-45 years. Study was done on a total number of 100 subjects, who were divided in two following groups, apparently 50 healthy subject were selected from rural area as experimental group. Age matched apparently 50 healthy subjects were selected from the urban community as control group. Sampling method was purposive. The study was conducted with prior protocol approved by Ethical committee and Thesis protocol review committee of Rangpur Medical College.

After selection of subjects, the objectives and the procedure of the study were explained in detail to them & their informed written consent were taken. A standard questionnaire was filled after taking history and through clinical examinations. All study procedures were maintained at the Model Family Planning Clinic, Rangpur Medical College & Hospital. At first five (5) ml of blood was collected from antecubital vein from each subject under all aseptic precaution by a disposable syringe. The needle was detached from the nozzle and then blood was immediately transferred into a test tube which containing EDTA (ethylene diamine tetra acetate) an anticoagulant. Then the test tube was rolled gently between two pump for proper mixing of anticoagulant with blood and immediately taken to the laboratory. Then haemoglobin gm% were studied with an automatic electronic blood count analyzer at the department of biochemistry, Rangpur medical college. Rangpur.

RESULTS

Mean \pm SD value of haemoglobin was (13.274 \pm 0.5631) in urban women and (11.753 \pm 0.9408) in rural women. Haemoglobin status was significantly higher (p<0.001) in rural women than those healthy urban women (Table I)

Table I: Showing mean ± SD haemoglobin concentration in group A and group B.

Groups	Haemoglobin concentration (gm/dl)	't' value	p value
Group A (n= 50)	13.274 ± 0.5631	10.196	< 0.001
Group B (n = 50)	11.753 ± 0.9408		

A = Urban women of reproductive age (Control).

B = Rural women of reproductive age (Experimental). n = Number of subjects. SD = Standard deviation.

DISCUSSION

In this study, the haemoglobin concentration was significantly decreased in rural women of reproductive age than those of control subjects. This finding was similar to that mentioned in other studies with^{7,10,11,12,13}. They had observed that rural women in Asia are among the most disadvantaged people in the world in terms of their health status and access to accurate and appropriate health information, adequate and affordable health services. Sexual and reproductive health is a particular concern for rural women, as a host of social, cultural, political, and economic factors increase Asian rural women's vulnerabilities to pregnancy and childbirth related deaths and disabilities, unsafe abortion. All of these factors causes decrease haemoglobin concentration in rural women of reproductive age⁷. The prime factors of decreased haemoglobin concentration are low intake of protein, iron, vitamin B12, folate, vit C and vit A. which might be due inadequate

intake of red meat, vegetables, cereals, fruits and iron. Heme iron (from meat) provides 10 to 20% of iron intake while non-heme iron (from vegetables, fruits, and cereals) provides 80 to 90%¹². Protein of high biological value in the diet is essential to supply amino acid for the synthesis of globin portion of haemoglobin. Iron is essential for the synthesis of heam portion of haemoglobin^{7,13}. The iron containing enzymes essential for electron transfer and oxidation reduction reaction. Iron bioavailability, defined as the amount of a nutrient ingested absorbed and utilized for normal metabolic function, is affected by numerous dietary and host related factors. Ascorbic acid reduces ferric iron to ferrous form in the stomach and thus helps iron absorption. It also acts in folate metabolism. Folate and vitamin B12 are essential for final maturation of red blood cells. They help in the synthesis of thymidine triphosphate which is essential for the synthesis of DNA. Lack of either vitamin B12 or folic acid causes diminished DNA and consequently failure of nuclear maturation and cell division ^{10,11}. They also observed some other causes include parasitic disease like hookworm infection. haemolytic anaemia due to malaria infection also decreased haemoglobin concentration ¹⁰. They observed that total body iron stores contain about 2 to 4 gm. A typical 60-kg woman may lose an additional 10mg of iron per day during menstruation¹². There are also ethnical and racial factors, menorrhagia, repeated pregnancies and unawareness, which leads to decrease haemoglobin concentration. Though public health condition, sanitation status, nutritional status due to mass dehelmintization have improved the overall situation in our country. But still women of reproductive age in rural area are suffering from decrease haemoglobin concentration. However, from this type of study the exact causes of decreased haemoglobin concentration can't be elucidated. Further study on serum iron level and serum total iron binding capacity and measurement of haemoglobin concentration after protein, iron,

vit B and Vit C supplementation and after having anti helminthic drug can give more conclusive findings.

CONCLUSION

From this study it may be concluded that in our country rural women of reproductive age especially those are living at remote areas have low haemoglobin concentration in comparison to urban women of reproductive age. Early motherhood, multiparity, nutritional deficiency, hook warm infestation, serum iron status and other unidentified factors may be respondible, which needs further research.

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Original article

Relationship of Serum Testosterone level with fasting blood sugar in newly diagnosed Type 2 Diabetes Mellitus.

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ABSTRACT

Background: Type 2 diabetes mellitus represents a major public health problem worldwide. One third of men with type 2 diabetes mellitus have low serum testosterone that creates a substantial public health burden in terms of inadequate sexual function and potential infertility. **Objectives:** To observe serum total testosterone level in newly diagnosed type 2 diabetes mellitus and its relationship with fasting blood sugar. Methods: This cross sectional study was conducted from Julv to December 2014 in the Department of Physiology, Rangpur Medical College, Rangpur. For this study a total number of 60 subjects aged 35 to 45 years were selected. Among them 30 were non-diabetic healthy subjects and 30 were newly diagnosed type 2 diabetes mellitus patients. Serum testosterone was estimated by ELISA method. For statistical analysis independent sample "t" test and Pearson's Correlation Coefficient 'r' test were performed by computer based software SPSS- 17.0 version for windows. **Results:** Serum total testosterone level was significantly low (p< 0.001) in newly diagnosed type 2 diabetes mellitus patients than non-diabetic healthy subjects. Again, in newly diagnosed type 2 diabetes mellitus patients Serum total testosterone was negativity correlated with fasting blood sugar level and relationship was statistically significant (P < 0.001). Conclusion: From this study it may be concluded that Serum testosterone level decreases in newly diagnosed type 2 diabetes mellitus patients and it has negative relationships with fasting blood sugar level.

KEY WORDS: Type 2 diabetes mellitus, serum total testosterone.

INTRODUCTION

Diabetes mellitus is a syndrome of impaired carbohydrate, fat and protein metabolism

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caused by either lack of insulin secretion or decreased sensitivity of the tissues to insulin¹. The incidence of diabetes mellitus in the human population has reached epidemic proportions worldwide and is increasing at a rapid rate. According to the International Diabetes Federation in 2010 an estimated 285 million people worldwide had diabetes². Type 2 diabetes mellitus leads to hypogonadism, which adversely affects testosterone production³.

Testosterone, an anabolic steroid, is the principal male sex hormone, which plays a key role in development of male reproductive tissues such as the testes and prostate and for the development of secondary sexual characteristics such as increased muscle and bone mass and body hair growth⁴. It is important not only for normal sexual function

but also for maintaining bone and muscle strength, mental and physical energy, and overall well-being⁵. Low testosterone is associated with diminished libido, erectile dysfunction, increased fat mass, decreased muscle mass, bone mass and energy, depression, and anaemia⁶. Testosterone is present in three major fractions in blood: free (2-3%), albumin-bound (20-40%), and sex hormone binding globulin (SHBG)-bound (60-80%). Both free and albumin-bound fractions comprise the biologically active component that is readily available to the tissues, whereas SHBG-bound testosterone is tightly bound and thus considered inactive7. A

recent study has demonstrated that total testosterone level is low in one-third of diabetic men4. A study from Australia reported that 43% of type 2 diabetes patients had total testosterone level <10 nmol/l8. A study from Egypt reported 33.2% hypogonadism in type 2 diabetes mellitus patients (ref). Another study from Brazil showed that free testosterone and total testosterone levels were subnormal in 46% and 34% of diabetic patient's respectively⁷.

Epidemiological studies have reported that 30%- 50% of men with type 2 diabetes mellitus have testosterone deficiency and up to 75% of them have sexual dysfunction, particularly erectile dysfunction (ED)6. Low serum Testosterone (LST) is also linked to visceral adiposity and insulin resistance (IR), disease, hypertension, vascular and dyslipidemia, as well as osteoporosis7. These metabolic derangements are linked to increased morbidity and mortality in patients with low serum testosterone⁹. However, many studies in men with diabetes have normal level of serum testosterone9. As far as our knowledge there is no such study on serum testosterone level among newly diagnosed Type 2 Diabetes Mellitus patients in our country. Therefore, the present study has been

designed to asses the total serum testosterone level and its relation with fasting blood sugar level in newly diagnosed type 2 diabetes mellitus patient.

METHODS

This is a cross sectional analytical study conducted in Department of Physiology, Rangpur Medical College, Rangpur from July to December, 2014. A total number of 60 subjects, aged 35 to 45 years of male were included in this study. Among them 30 non-diabetic apparently healthy subjects were included in group I and 30 newly diagnosed untreated type 2 diabetes mellitus patients were included in group II. All subjects were age and socio-economical condition matched. Weight and height of each subject was taken for calculation of BMI¹⁰. BMI was catagorized according to WHO (Asian) criteria¹¹. Newly diagnosed untreated type 2 Diabetes Mellitus patients were selected from Outpatient Department of Endocrinology, Rangpur Medical College and Diabetic Association, Rangpur. The objectives, nature, purpose and benefit of the study were explained to each subject in details. Informed written consent was taken from all participants. All the subjects were excluded from kidney diseases, liver diseases, and other chronic and acute illness. The study was conducted with prior protocol approved by Ethical committee and Thesis protocol review committee of Rangpur Medical College.

5 ml of venous blood was drawn from medial cubital vein of each subject by sterile disposable syringe for OGTT after 8-10 hours overnight fasting and 2 hours after ingestion of 75 gm glucose ingestion (According to WHO criteria)¹². Serum glucose level was estimated by enzyme method¹³ and serum testosterone level was estimated by ELISA method¹⁴. Data were expressed as mean±SD and were

analyzed by unpaired students't' test and Pearson's Correlation Coefficient 'r' test where applicable. p value < 0.05 was taken as level of significance. Data were analyzed by SPSS version SPSS-17.0 for windows.

RESULTS

The mean \pm SD level of weight and BMI in newly diagnosed type 2 diabetes mellitus patients were statistically significant (p< 0.001) than that of non-diabetic group(Table I).

Table I: distribution of the subjects according to Mean $(\pm SD)$ age, height, weight and BMI.

Group	Age	Height	Weight	BMI
	(yrs)	(cm)	(kg)	(kg/m ²)
Group I n=30	40.03±3.76 (35-45)	161.99±5.53 (148.75-171.3)	61.66±6.09 (49.0-77.0)	23.73 ± 2.17 (20.13- 28.70)
Group II	40.40±3.95 ^{NS}	160.76±4.47 ^{NS}	68.62±7.92***	26.96±1.98***
n=30	(35-45)	(144.65-170.5)	(57.90-78.8)	(22.20-32.2)

Data were expressed as mean \pm SD. Unpaired't' test was done.

Group I : non-diabetic apparently healthy subjects.

Group II : Newly diagnosed type 2 diabetes mellitus patients.

n= number of subjects. Figures in parenthesis indicate ranges.

***= p< 0.01. NS= Non-significant

Normal range of BMI is 18.5-24.9 kg/m2 (International) and for Asian >23 is overweight and >25 is obese¹¹

The mean \pm SD level of fasting serum glucose and serum glucose level 2 hours after ingestion of 75 gm glucose in newly diagnosed type 2 diabetes mellitus patients were higher than that of non-diabetic group. The mean \pm SD of serum glucose level 2 hours after ingestion of 75 gm glucose in newly diagnosed type 2 diabetes mellitus patients were statistically significant (p<0.001) than that of non-diabetic group (Table II). Table II : Mean ± SD serum Fasting Glucose (FBS) and serum Glucose level 2 hours after 75 gm glucose ingestion in group I and group II subjects.

Variables	Group I (n = 30)	Group II (n = 30)
FBS (mmol/L)	4.76 ± 0.51	$8.98 \pm 0.60^{\text{NS}}$
Serum glucose level 2 hours after ingestion of 75gm glucose (mmol/L)	8.46 ± 1.01	18.63 ± 4.71***

Data were expressed as mean \pm SD. Unpaired't' test was done.

Group I: non-diabetic apparently healthy subjects.

Group II: Newly diagnosed type 2 diabetes mellitus patients.

n= number of subjects.

***= p< 0.01. NS= not significant

The mean \pm SD level of serum total Testosterone level in newly diagnosed type 2 diabetes mellitus patients were significantly lower (p<0.001) than that of non-diabetic group (Fig: 1).

Fig 1: Mean ± SD serum total testosterone in group I and group II subjects .



Data were expressed as mean \pm SD. Unpaired't' test was done.

Group I: non-diabetic apparently healthy subjects. Group II: Newly diagnosed type 2 diabetes mellitus patients.

n= number of subjects.

***=P< 0.01. Normal level of serum testosterone: 2.88-8.64 ng/mL.15

In newly diagnosed type 2 diabetes mellitus patients serum total testosterone was negativity correlated with fasting blood sugar level and relationship was statistically significant (P<0.001) (Table III).

Table III : Correlation of testosterone withserum FBS in newly diagnosed type 2diabetes

Variable	r/ p
Serum total testosterone (ng/mL)	-0.925/0.000***

Pearson's correlation was done. n= number of subjects. FBS= fasting blood sugar. ***=P< 0.01.

DISCUSSION

In the present study, serum total testosterone level was significantly decreased in newly diagnosed type2 diabetes mellitus patients than that of non diabetic subjects and FBS was negatively correlated with serum testosterone level that was strongly significant. This finding is consistent with that of some other investigators^{8,16,17}. In contrast, some other researchers did not find any significant change in serum testosterone leve^{16,9}.

The exact mechanism of testosterone deficiency in diabetic is yet to be elucidated. In diabetic male patients, lower level of the major carrier protein - sex hormone binding globulin (SHBG) and albumin has been observed as a consequence of insulin resistance¹⁶. Again, an excessive amount of fat in type 2 diabetes mellitus leads to increase activity of aromatase enzyme, which causes conversion of large amount of testosterone into estrogen. An increased in estrogen level leads to the suppression of gonadotropin releasing hormone from hypothalamus as well as impaired secretion of gonadotropin by the pituitary gland, which results in the reduction of both testosterone secretion and mature sperm production¹⁷.

Obesity is usually associated with Type 2 Diabetes Mellitus as well as lower SHBG concentrations, possibly as a consequence of the insulin resistance⁷. Men with mild-to moderate obesity often had low testosterone. Also, in very obese men there was a decrease in free testosterone level, resulting from the peripheral conversion of testosterone into estrogens. Increase level of estrogen decreased the amplitude of LH pulses, promoting central inhibition of androgenic production. In obesity increased amount of leptin also released which causes leptin resistant in the hypothalamo-pituitary axis. Leptin also directly suppress the stimulatory action of gonadotropins on the levdig cell of the testis to reduce testosterone production¹⁶.

In the present study insulin resistance in type 2 diabetes mellitus may cause alteration in the hypothalamo-pituitary-gonadal axis. This may results in decrease formation of luteinizing hormone and follicle stimulating hormone that may leads to decrease formation of testosterone from leydig cell of the testis.

CONCLUSION

It may be concluded that serum testosterone level decreases in newly diagnosed type 2 diabetes mellitus patients and it has negative correlation with fasting blood sugar level. So, type 2 diabetic patient should be screened for baseline testosterone level.

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Special article

Pesticides and its impacts on Pregnancy

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Pesticides are the substances used for destroying, preventing or controlling of pest causing harm during the production, processing, storage, transport or marketing of agricultural commodities¹. The use of the pesticides is so common that they are often called plant protection product. However, their application is often not takes place in a very precise way. As a result unintended exposures of them occur to other organisms in the areas where they are applied. Pregnant women, children and any younger age group as well as developing organisms are particularly vulnerable to the harmful effects of pesticides². The World Health Organization estimates that there are 3 million cases of pesticide poisoning occurs each year and among them up to 220,000 person die in the developing countries³.

Pesticides are a class of biocide. In general they are Chemical and Biological agents. Use of biological agents (bacteria and virus) as pesticides has limited application. Most of the pesticides used world wide are in the chemical families. These include organochlorines. organophosphates, carbamates⁴. In the whole world approximately 2.4 megatons pesticides are used annually. These are used in US 1 kg per hector, 4.7 kg in China, 1.3 kg in the UK, 5.9 kg in Japan and 2.5 kg in Italy⁵. The use of pesticides by Bangladeshi farmers increased by

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328 per cent during the past 10 years, posing a serious hazards on human health due to its long-term residual effect according to a study by Bangladesh Rice Research Institute (BRRI). They have estimated that near about 48,690 tons pesticides are used each year in Bangladesh, costing171. 43 million US dollar⁶.

Pesticide formulations contain both "active" and "inert" ingredients. Active ingredients kill the pest and inert ingredients help the active ingredients to work more effectively. They acts primarily on nerve cells, i.e., acetylcholinesterase, the voltage-gated chloride channel, the acetylcholine receptor, and the gamma-aminobutyric acid receptor, which are present only in animals but not in plants kingdom⁷. The organochlorine hydrocarbons (DDT) could be separated into dichlorodiphenylethanes, cyclodiene and other related compounds and they operate by disrupting the sodium/potassium balance of the nerve fibers. resulting in continuous transmission of nerve signals⁸. Organophosphate and carbonates largely replaced organoclorineand that operates through inhibiting the enzyme acetylcholine-esterase allowing acetylecholine to transfer nerve impulses indefinitely9.

In general, by using pesticides farmers become benefited from increase in crop yield and being able to grow a variety of crops throughout the year. In expense of one dollar on pesticides for crops, they yields four dollars. This means based on the amount of money spent per year on pesticides, 10 billion dollars, there is 40 billion dollars savings in crop that would be lost due to damage by insects and weeds. Moreover, use of pesticides creates a large job market within the agriculture sector¹⁰. However, use of pesticides is responsible for multiple health hazards that occurs continuously either in silent or in overt manifestations. Acute health problems such as abdominal pain, dizziness, headaches, nausea, vomiting, as well as skin and eve ailments may occur in workers those handle pesticides. The long term effects are leukemia, lymphoma and risk of developing cancer in brain, kidney, breast, prostate, pancreas, liver, lung, and skin¹¹. Pesticide exposure may worsened neurological functions, where the risk of developing Parkinson's disease is 70% greater than those are not exposed to pesticides¹². Long-term exposure may also increase the risk of memory disorders, depression and dementia¹³. Using pesticides for more than 100 days in their lifetime leads to greater risk of developing diabetes, ranged from 20 to 200 percent¹⁴. Another study indicated that pesticides exposure is associated with chronic respiratory problems, including asthma¹⁵.

In United States there is strong evidence that mother exposed to pesticides during their pregnancy is associated with an increased risk to birth defects, fetal death and altered fetal growth and later there was development of leukemia, Wilms' tumor and brain cancer in their children¹⁶. In Malaya and Vietnam, Agent Orange (pesticides) a50:50 mixture of 2,4,5-T and 2,4-D, has been associated with genetic deffects and had a low birth weight and developmental defects¹⁷. A study on 306 expectant mother from a diverse range of economic and racial groups and from urban, suburban and rural areas were done, where the fetus exposed to pesticide chemicals during pregnancy and found that there were an average 150-gram reduction in baby's birth weight and a half-a-week to one week earlier welcome into the world¹⁸.

Now a days Pesticides are used indiscriminately and excessively throughout

the globe including our country . People can be exposed to pesticides by different routes at the site of occupation, at home, at field, at school and by their food. Pesticides and their residues remain in the food materials, water, fruits, vegetables and in total diet¹⁹. These substances enter into human body during consumption of the pesticide contaminated food which leads to the chronic disorders.

The different house hold preparations such as washing, cooking, washing plus cooking, salt water washing play a role in the reduction of pesticide residues²⁰. Plain tap water washing have not shown any promising effect in the removal of residues below MRL (maximum residue level).But washing with 2% salt water vielded very good effect in the removal of the residues below MRL levels. If chopped samples are dipped in a beaker containing 2% sodium chloride solution (20 gram, roughly 3 tea spoonful in 1 liter water) for 10-15 minutes and then gently rubbed by hand and decanted the plant from salt water then this reduce or remove the pesticides will significantly²¹. Direct cooking process has shown less effect in the removal of residues of pesticides when compared with 2% salt water washing . However, by applying both the process of 2% salt water washing and cooking, the residues can be reduced by 98-100%. Fat soluble and water soluble pesticides also are removed by these processes²².

Extensive use of pesticides is responsible for many immediate and long term health hazards to all age group people world wide. Thus, the removal of these pesticide from food commodities is very much important for our health, specially in pregnant women and children. Salt water washing is a very simple and easy process that can be helpful to decontaminate the pesticides or their reduction in food before consumption.

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Special article

HEALTH ETHICS IN MEDICAL EDUCATION

Delwar H¹, Khairul AH² and Khaleda P³.

ABSTRACT

Long ago an ethical body was constructed for practice by the medical professionals. Members of the professionals must consider their resposibilities and also that of other allied professionals and the society as well. Health ethics was primarily introduced in undergraduate medical curriculum. Practice of ethical points will help the professionals and learners in making descision on the relevent issues.

INTRODUCTION

The rapid advances in science and technology, the radical changes in macroeconomics planning and the promotion of market economics, and globalization are the factors , which have increased importance of health ethics in past few decades¹. The word ethics is derived from Greek word 'Ethikos' which means manner & habit of man. Medical Ethics means the moral values & principles which should guide the members of the medical profession in the course of their practice of medicine & in relationship with their patients and other members of the profession.

The modern principals of medical ethics was prepared by thomas percival in 1803. Lastly in 1948, "Geneva Declaration" was declared &

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was accepted by the Geneva assembly of the World Medical Association in London on October 12,1949. This decleration was last assembeld in 2006. Till now we all abide these declarations .The declarations are as follows:

- 1. I solemnly pledge myself to consecrate my life to the service of humanity
- 2. I will give my teachers the respect and gratitude which is their due
- 3. I will practice my profession with conscience and dignity
- 4. The health of my patient will be my first consideration
- 5. I will respect the secrets which is confided in me
- 6. I will maintain, by all means in my power, the honor & noble traditions of medical profession
- 7. My colleagues will be my brothers
- 8. I will not permit considerations of religion, nationality race party politics or socials standing to intervenes between my duty & my patient
- 9. I will maintain the utmost respect for human life from the time of conception
- 10. Even under threat I will not use my medical knowledge contrary to the law of humanity
- 11. I make these promises solemnly freely & upon my honor².

Central Areas of Health Ethics

Considering the global context in the field of Health Ethics WHO has identified 3 central areas of health ethics which are as follows:

- 1. The physician patient relationship
- 2. Fairness and equity
- 3. Specific health issues³.

Physician – Patient Relationship

It is the doctor, who with his manner, attitude & speech should make the patient feel comfortable, and it mainly depends on the doctor. The relationship is based on some component such as-

- 1. Mutual trust and confidence
- 2. Instillation of hope and minimization of fear and doubt
- 3. Empathy wherein the physician places himself at patient's position, helps him understand how the patient feels.
- 4. Bridging cultural gaps Failure of physician to acknowledge the patient's cultural beliefs will result in poor communication.
- 5. A personal relationship based on concern should be afforded every patient. The patient should be seen as a total human being, rather than a vector of altered physiology.
- 6. Communication is a difficult task that requires training, experiences & skills. By allowing a patient to relate his story & his voice concerns, a physician helps to strengthen the important relationship they share.

The physician- patient relationship depends on different events. But it can be maintained properly by

- 1. Patient's autonomy
- 2. Truth telling in serious illness
- 3. Informed consent
- 4. Conflict and conflict solving

Informed Consent:

Informed consent implied an understanding by the patient of

- 1. The nature of his condition.
- 2. The nature of the proposed treatment or alternative procedure.
- 3. The risks and benefits involved in both the proposed and alternative procedure.
- 4. The potential risks is not receiving treatment.
- 5. The relative chances of success or failure of both procedures³.

Fairness And Equity

Physicians often face resource constraints when treating patient. Not all patients that could potentially benefit from treatment can be treated because of lack of resources. Doctor then has to decide which patient should get priority &the issue in what basis those decisions are made of. The facts are

- 1. Choosing patient under resource constrains such as
- 2. Giving priority to the patient with most serious condition
- 3. Treating patient to whom he has special relation
- 4. Giving less priority to patients who have their own illness.
- 5. Considering economic status of patient & family.

Specific Health Issues

A number of health issues are associated with certain specific ethical problems, either because of particular characteristic of disease such as HIV/AIDS and Mental Illness. Or because of certain specific challenges involved certain types of treatment such as

- 1. End of life decisions
- 2. Organ donation and transplantation
- 3. Medical termination of pregnancy.

HIV/AIDS & Mental Illness:- In these diseases if patient's condition is kept confidential it may cause harm to the patient's family and even society. So in these cases doctor can make decisions for the benefits of society.

End Of Life Decisions:- Often the relatives

find very difficult to give consent in some cases such as – switching off ventilator in case of brain death of patient and use of aggressive treatment in terminal illness.

Organ Transplantation And Donation:- An

organ transplantation operation is very expensive both in immediate treatment and lifelong follow up. So to choose a patient is very difficult and here ethical issue can arise. In some countries organ donation is allowed from live donors in contrast to brain dead person if there are close relatives. This issue is complicated by the existing illegal trade with organ at national and international level.

Medical Termination of Pregnancy:

In one hand where abortion is unethical in other hand MTP is ethical in some cases such as-

- 1. Pregnancy endangering the life of the women (Therapeutic)
- 2. Prenatal diagnosis of serious disease of fetus (Eugenic)
- 3. If a women get pregnant when she is a victim of rape case it is ethical to do MTP in humanitarian background. (Humanitarian)
- 4. Social: Female of contracephitic [Different Jargons In The Field Of Medical Ethics]

Medical Etiquette:- It is the conventional law of courtesy to be observed among the members of the medical profession. One physician should not criticize the others. **Professional Imfamous Conduct or Serious Professional Misconduct:-** It is any conduct of a doctor which might reasonable be regarded as desgraful or dishonorable. If any medical practioners does this following acts his registration could be cancelled from the medical and dental council of the state.

- 1. Addiction (Drug)
- 2. Voluntary sexual intercourse between married person and a person married or not, other then his or her spouse.
- 3. Abortion (unlawful).
- 4. Alcohol (drinking).
- 5. Association with bad people /Manufacturer / Unqualified / Unregistered person

6. Advertisement to promote practice-

a. It should not have any thing other then his name, qualification, specialty and his registration.

b. He should not display publicly about his consultation fees. But he can display his consultation fees in his chamber or patients waiting room,

c. When a registered physician runs a maternity home, clinical home for blind people or physically handicapped patient he can take steps to publish all about the institution but in no way the name of the director or physicians in those statements.

d. Signboard or prescription of physician should be of reasonable size, containing the name, degree, Institution from where he obtained the degree and registration number given by BM&DC. Nothing than those should be display in signboard.

- 7. **Conviction** Abuse professional position by committing adultery or any improper association with patient
- 8. **Contravention** A registered medical practitioner shall not contravene the provision of the drug act & regulation
- 9. **Covering** Association with unqualified or unregistered person who practice medicine

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- 10. Issuing false certificate, notification, report or any other document in their professional capacity for use in the court on administration purpose.
- 11. **Dichotomy/Fee splitting** Receiving or giving commission or other benefit from/to medical practitioner or consultant for introduction of a patient.

Privileged Communication:- It is a statement

made by a doctor(such as in television, radio, poster) to the legal authorities in the interests of the country or public towards whom he as a legal, social or moral duty. Examples are:

- 1. A patient suffering from STD (sexually transmitted diseases) going to marry before cure, If does not restrain himself even after the advice not to marry till cured, then the fact may be informed to the person whom he or she proposes to marry.
- 2. If a person suffering from infectious disease, being carrier of the infection, serves in a hotel and handles food, if dose not refrain himself from continuing such job till cure even after the advice of the job till cure even after the advice of the doctor then the doctor has to inform his employer about the danger of his continuing in the job with the disease.
- 3. Some categories of employees, like drivers who are colour blind or

have defective vision, deafness, should not continue in the job as driver. If he dose not follow the advice of the doctor then the fact should be informed to his employer⁴.

CONCLUSION

Patients rights is the center of attention in the practice of medicine. An ethical dilemma arises when different treatment options involve conflict between ethical principles and physicians wish to adhere to. Going through the health ethics will encourage and facilitate teachers and students for making decisions on ethical issues while in service.

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College News

RESULTS OF PROFESSIONAL EXAMINATIONS:

1st, 2nd and Final Professional MBBS Examination were held in July, 2014. The number of students appeared in; total number of students passed, total failed and percentages of pass in the 1st, 2nd and Final Professional MBBS examinations are shown in the following table and figure (Table I & Figure 1).

Exam Year	Exam Name	No. of Students Appeared in	No. of Students Passed	No. of Students failed	Percentage of Passed
Julv'	Final Prof.	18	14	4	78%
2014	2nd Prof.	97	41	56	42%
	1st Prof.	141	92	49	65%

Table I: Result of 1st, 2nd and Final Professional MBBS Examinations in July, 2014.

Figure 1: Result of 1st, 2nd and Final Professional MBBS Examinations in July, 2014.



2.7

Forwarding letter for submission of article Prime Medical Journal

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Sub : Submission of manuscript

Dear Sir,

I/We are submitting our manuscript titled	
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for publication in your journal. The article has not been published or subjected for publication elsewhere.

We believe that article may be of value to the professionals engaged in different fields of Medicine. We are submitting 2 copies of manuscript along with an electrinic version (CD).

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Thanks and best regards

Signature of author/authors

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Introducation :

- Statement of the problem with a short discussion of its importance and significance.
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