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CONTENTS

SUPRAPUBIC PROSTATECTOMY BY CAUDAL ANAESTHESIA: A COMPARATIVE ANALYSIS OF 150 CONSECUTIVE CASES

A Hadi

Key Words :

Prostatectomy, Caudal Anaesthesia, Caudal (Sacral) block.

Summary :

A review of 150 consecutive suprapubic prostatectomies under caudal anaesthesis is presented. In comparison to other studies it was noted that results are favourble in this series from a peripheral modernised hospital, especially in relation to morbidity and mortality. Suprapubic prostatectomy under caudal anaesthesia is a safe and effective method of releiving prostatic obstruction and is recommneded to be performed by surgeons working in peripheral hospitals where anaesthetists with anaesthetic facilities are not available.

Introduction :

In Bangladesh, suprapubic prostatectomy is performed mostly in large hospitals or teaching institutions where anaesthetic facilities are available. Surgeons in peripheral modernised hospitals can not perform this procedure due to lack of adequate anaesthetic facilities. In this series, 150 consecutive cases of suprapubic prostatectomies performed in peripheral modernised hospitals under caudal anaesthesia administered by the surgeon himself, is reported and a comparative analysis is made with cases of open prostatectomies performed under spinal or general anaesthesia.

Abdul Hadi, FCPS, Professor of Urology, Dhaka Medical College, Dhaka.

Material and Methods :

All the operations were performed between 1973 and 1981. The indications for prostatectomy were more flexible than those often stated. The prostate gland had to be palpably enlarged and associated with one or more of the following presentations—increased frequency with difficulty, some residual urine, repeated attacks of infection secondary to residual urine, acute retention (more than one attack) and severe haematuria were considered suitable for open prostatectomy. Supporting investigations were a rising or raised blood urea and an intravenous urogram.

Preoperative evaluations of all patients included history and physical examination, full blood count, chest X-Ray, electrocardiogram, routine urine test, excretory urography, renal function study and urine culture. Cystoscopy was not included. Medical consultation was obtained if there was significant associated systemic problems. The final decision as to perform the operation depended on clinical considerations. All patients were cross-matched for two or more units of blood preoperatively. Preoperative and post-operative antibiotics were given to all patients.

All patients had caudal anaesthesia. This was carried out by inserting a long needle through the sacral hiatus and injecting about 20 to 25 ml of 2% plain procaine or 2% Xylocaine into the sacral canal outside the dural sheath. The patient lay in the left lateral side and the sacral hiatus was defined as a depression bounded by the sacral cornua. A wheal was raised at this point. A lumber puncture needle with stillete in, was introduced through the wheal piercing the sacrococcygeal membrane. The point of the needle usually strikes the anterior wall of the canal; it was then withdrawn a little, swung in more towards the coccyx and reinserted when a loss of resistance would be felt. The needle was aspirated gently and if no blood or CSF was present, 10 ml of distilled water was injected to see whether the needle was in correct position (identified by sudden loss of resistance to injection). Then 20 to 25 ml of 2% solution was injected into the extradural space. The needle was withdrawn and the patient was turned into his back. It takes about 15 to 20 minutes to establish a satisfactory block. In some cases, sedation during operation should be provided by diazepam or pethidine since an extradural technique may fail to block all segments. An intravenous infusion must be established.

The operative procedure has been an essentially standard open prostatectomy. A vertical suprapubic incision was used. The bladder was opened longitudinally and the prostate was bluntly enucleated. Tags of mucosa or remnants of prostatic tissue, if presnt, were removed. Haemostatic ligatures were placed in the neck or prostatic fossa. The posterior bladder neck was wedged and the interureteric ridge was incised. Vasectomy was not performed in any case. A '22' Foly urethral catheter with 30 ml balloon was introduced and the balloon was inflated to at least 20 to 30 ml. The bladder was closed with single layer of Xero chromic catgut, leaving a cystostomy tube in all cases through a stab wound in the bladder. Prevesical space was drained, Frusemide 40 mg was given intravenously as the operation was completed. This promotes an excellent diuresis and must be covered by intravenous 5% dextrose.

Post-operatively, the Foly catheter was attached to a closed irrigation system and continuous irrigation with normal saline or 3.8% sodium citrate was used for 24 hours. The cystostomy tube was attached to a bed-side closed drainage and was removed on the 4th day postoperatively. The urethral catheter was removed usually seven to eight days postoperatively.

All patients were ambulated daily starting on the second post-operative day. Enemas were not allowed postoperatively as enemas prolong or reactivate bleeding from the fossa.

Results :

Patients' age ranged from 50 to 80 years with average of 60.5 years, Comparative evaluations are shown in table-I.

In this series, the average age is about nine years lower than the average age of the patients in western countries. Of course, in this age group, epidural anaesthesia was one of the anaesthetic procedures of choice.

We could not proceed for operation in nine cases due to total failure in

Table—I

Showing Patients' age

Authors	Youngest	Oldest	Average
Nicoll (1972)	48 Yrs.	88 Yrs.	69.4 Yrs.
Jasper (1974)	49 Yrs.	93 Yrs.	69.7 Yrs.
Present series (1981)	50 Yrs.	80 Yrs.	60.5 Yrs.

anaesthesia. These cases were referred to other centres for further management and are not included in this study for further discussion. Side effects of caudal anaesthesia were few; convulsion was present in four cases which was controlled by intravenous diazepam. With plain solution of 2% procaine or 2% xylocaine, there was a reduction in heart rate and cardiac output and a decrease in mean and diastolic pressure. Extradural block provided analgesia and muscular relaxation. In addition, peroperative blood loss was reduced.

There is little in the literature about the time required for suprapubic prostatic enucleation. Operating time count down starts 15 minutes after injection (because anaesthetic effect is fully established usually 15 minutes after injection). The operating time ranged from 25 minutes to 60 minutes with an average of 50 minutes (Table II). The anaesthetic effect obtained by using plain solution lasts about one hour for open prostatectomy.

Post-operative hospital mortality was 2% (3 deaths in 150 cases). All deaths resulted from cardiopulmonary complication. Varification of the death could not be done by post-morten examination. A comparative analysis is shown in the table-III.

Table—II.

Showing operating time in minutes in standard suprapubic prostatectomy.

Authors	Shortest	Longest	Average
Nicoll (1974)	20	145	69
Present series (1981)	30	60	50

Table—III.

Showing mortality rate of suprapubic prostatectomoy.

Authors	No. cases	Percentages
Perkash et all (1971)	100	4%
Nicoll (1956-72)	525	0.95%
Jasper (1974)	150	5.5%
Present series (1973-81)	150	2%

Operative and post-operative blood transfusions were given to all the patients (Table-IV). Of these transfusions, 15 pati.

Table—IV.

Showing Frequency of Transfusion

Authors	No. Cases	Percentages
Perkash (1965-66)	100	84
Nanninga et al. (1966-70)	142	14.8
Nicoll (1956-72)	525	7.8
Present series (1973-81)	150	100

ents received one unit of blood and 135 patients received more than one unit. A direct measurement of blood loss was not made in any of these patients. The transfusion rate is considered a crude assessment of total blood loss.

Post-operative stay ranged from 11 to 36 days with an average of 14.5 days (Table-V).

Table—V.

Showing Average post-operative hospital stay.

Authors	Days
Perkash et al. (1965-66)	12.1
Nanninga et al. (1966-70)	15.5
Nicoll (1956-72)	10.8
Present series (1973-81)	14.5

The longest stay was caused by wound fistula in a patient with renal failure.

Fourteen patients underwent other surgical procedures in conjunction with the suprapubic prostatic enucleation. These included excision of bladder tumour in five cases, removal of bladder calculi in seven and herniorrhaphy in two.

The post operative results concerning complications are listed in table VI. Incontinence, fistula and infection, all of which were cleared or improved before the patient was discharged from the hospital, were the major complications. Urinary incontinence persisted after discharge from the hospital in 15 patients.

Table—VI.

Showing post operative Complications (Total number of cases in each series=150)

	Jesper (1974)	Nicoll (1972)	Present series (1981)
Fistula	18	20	28
Incontinence	19	9	15
Infection	10	1	20
Prolonged haematuria	6	39	16
Epididymitis	3	2	6
Renal failure	1	0	2
Psychoses	4	0	2
Congestive cardiac failure	5	1	3
Strictures	2	0	9
Wound dehiscence	0	1	5

The weight of adenomatous tissue as recorded in 50 patients ranged from 10 to 150 gm with an average of 40.5 gm. The results are compared with other series in table VII.

Table—VII.

Showing average wheight of tissue removed during operation.

Authors	No. of Cases	Tissue (Gm.)
Nanninga et al. (1966-70)	142	67.2
Perkash et al. (1965-66)	100	42.0
Nicoll (1956-72)	525	44.4
Present series (1973-81)	50	40.5

On pathological examination of tissue in 50 cases, 48 patients had benign prostatic hypertrophy and two had adenocarcinoma of the prostate.

Discussion :

Because of the technical simplicity of both suprapubic prostatic enucleation and caudal anaesthesia, the procedure of suprapubic prostatectomy under caudal anaesthesia is recommended in those modernised periphral hospitals where the surgeon has to work without an anaesthetist. The caudal block is easier to perform and wtih a little practice, the operating surgeon can master this technique. Total failure rate in achieving anaesthesia is not high and in this series it is 7.5%. Caudal block can be used as a sole technique for transurethral procedures, hernia and anal surgery. Caudal anaesthesia enjoys advantages such as muscular relaxation, prevention of shock and pulmonary complications, non-interference with the function of liver and kidney and reduced blood loss during operation. The principal drawback of general anaesthesia has been excessive blood loss. But under epidural anaesthesia and with improving technique, this factor is becoming less important.

The anaesthetic effect obtained by using plain solution has duration of about one hour. The longest operating time in this series was 60 minutes. Thus those procedures which usually take less than an hour or so can be performed under epidural anaesthesia. Anaesthetic effect may be prolongged further by the use of adrenaline-containing solutions.

Death from suprapubic prostatectomy have declined through the years and a further decline can be expected. The mortality rate of 2% in this study compares favourably with other series (Table-III).

The transfusion rate in this series is 100 percent. Transfusion rate ranging from 10 to 48 percent have been noted in recent studies. 100 percent cases in our series needed transfusion because of the fact that the average haemoglobin level in our population is much lower in comparison to that found in population of western countries. An average post-operative hospital stay of 14.5 days compares favourably to other studies in which the stay ranges between 9.8 and 18.9 days. The longer hospital stay was due to infection, anaemia, longer operating time and increasing blood loss during operation.

Average weight of removed adenomatous tissue in this series was 40.5 grams with a range of 10 grams to 15 grams. In this study more flexibility concering the size of the gland was followed when advising prostatectomy than other studies. The weight of the tissue removed and the age of the patient were somewhat lower than what might be considered average. Perhaps patients in our community seek urological help for prostatism at an earlier stage of the disease than they do in Western communities.

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FIFTY CASES OF BRACHIAL PLEXUS BLOCK IN THE SURGERY OF UPPER EXTREMITY

F Nisa, S Das

Key words :

Regional Anaesthesia (Brachial plexus block).

Summary :

Fifty cases of brachial plexus anaesthesia were performed at Sir Salimullah Medical College and Hospital, Dhaka for different types of surgical manauver which included both upper extremities (Burnham, 1959).

Introduction :

Harvey Cushing in 1901 described the term regional anaesthesia in pain relief by nerve block (Alfred Lee, 1984). Patrick in 1940 published his modified technique of brachial plexus block (Alfred Lee, Rushman & Atkinson, 1984). Since that time supraclavicular approach to brachial plexus was the most common technique. In later years approach to the brachial plexus through axilla became popular(Leonard Brand, 1961.) But this regional block technique in advanced countries has been replaced by general anaesthesia as it is time consuming and neurological complications may occur. Morever, discovery of potent drugs and advances in technology has made general anaesthesia easier and safer. In developed countries facilities for general anaesthesia are only available in a limited number of hospitals. High cost of modern equipments and lack of repair and maintenance facilities make universal use of general anaesthesia unlikely in the near future. Regional block anaesthesia does not require sophisticated equipment and hence the cost is much less. This technique may be valuable for operations in rural arears of Bangladesh. We have evaluated the efficacy and safety of Brachial plexus block for operations on the upper extremity using both supraclavicular and axillary routes in a total of 50 patients.

Methods and Materials :

This study was conducted in Sir Salimullah Medical College Hospital for different types of surgical manauver.

Twenty cases have undergone brachial plexus block by supraclavicular approach and 30 cases by axillary approach. All of them were in ASA grade I and II and in the age group of 14-60 years having 30-70 kg body weight.

The full procedure was explained to the patients and their attendent and a written consent was obtained. Blocks were not

1. Fukhrun Nisa, Associate Professor of Anaesthesiology, Sir Salimullah Medical College.
2. Santipada Das, Assistant Surgeon (Anaesthesiologist).

performed for patients in whom the site of injection was infected or inaccessible. Routine investigations like haemogram, blood sugar, blood urea, skiagram, electrocardiogram and urine examination were carried out in routine cases and as far as possible in emergency cases.

The cases included fractures of long bones undergoing both close reduction and internal fixation, excision of tumours, removal of foreign body, release of contractures, repair of tendon, nerves and lacerated wounds.

The patients were premedicated with injection pethidine Hcl 1.5 mg/kg body wt 45 minutes before the procedure to relieve anxiety, apprehension and to make patient cooperative. Intravenous line was kept open. Lignocaine 2% with or without 1:200,000 concentration of adrenaline was used. The dose was adjusted according to patients body weight, height and physical status.

Patients of different age and sex were divided into two groups.

Group A consisted of 20 patients who were given supraclavicular block in the standard manner using the clavicle, subclavian artery and first rib as land mark. The first rib was located with a 22 gauge two inch short beveled needle and paraesthesias to the hand were sought. The syringe was attached to the needle during the block and the drug was not injected until a good paraesthesia was obtained.

Group B consisted of 30 patients who were given axillary block as described by Burnham. With the patient lying supine, the arm was held at right angle to the body and externally rotated. The bent elbow and the hand was placed supine on the table. The brachial artery was palpated as high in the axilla as possible. A 25 gauge needle was inserted and a click was felt which confirmad the puncture of neurovascular sheath. The set amount of lignocaine with or witout adrenaline was injected slowly after making sure that the surrounding vessels were not pierced.

Vital parameters e.g pulse rate, blood pressure and respiration all were recorded every five minutes. Any cough during the procedure and after it was recorded. Onset and height of analgesia were determined by tingling and numbness of the fingers by pin prick method. The total duration of anaesthesia was recorded. The intensity of sensory and motor blockage were assessed.

The average increase in pulse rate after operation (for both supraclavicular and axillary approaches) was 12.4/minute. Average increase of blood pressuere was 6 mm of Hg (systolic) and 4 mm of Hg (diastolic). Respiration remained unchanged.

Results

Out of 20 supraclavicular brachial block only one patient had general anasthesia after failure of the block. The complications of supraclavicular block (mainly pneumothorax, phrenic nerve palsy, haematoma) were kept in mind all the time and looked for carefully in post operative period. No untoward effect and complicotion occured except a small haematoma in one case which subsided over 24 hours.

30 axillary brachial plexus block were successfully performed. There were no instances of infection in either series nor were there any untoward reactions to the local anaesthetic durg. There was no detectable

difference with respect to onset of block (table II) the duration of anaesthesiac (table-III) and

Table—I.

Showing distribution of cases according to diagnosis and treatment.

Diseases	Operations	No. of cases
Fracture of long bones of upper extremity	Internal fixation	15
Cut injury of hand	Repair	10
Tumours	Excision	8
United fractured long bone	Removal of nail and plate	5
Carpal tunnel syndrome	Release	4
Foreign body	Removal of foreign body	5
Contracture	Release	6
Fractured long bone	Closed reduction	7

Table—II.

Showing time of onset of the Effect of Block.

Supraclavicular

No. of cases	Paraesthesia	Sensory loss	Motor loss
8	1 min	15 mins	15 mins
4	1.5 mins	11 ,,	14 ,,
4	2 ,,	14 ,;	16 ,,
3	2.5 ,,	17 ,,	18 ,,
1	Nil	Nil	Nil

Average onset of Paraesthesia	1.7 min
Average onset of Sensory loss	14.2 ,,
Average onset of Motor loss	15.7 ,,

Axillary

No. of cases	Paraesthesia	Sensory loss	Motor loss
15	1 min	15 mins	15 mins
7	1.2 mins	14-15 ,,	16 ,,
5	1.5 ,,	18 ,,	20 ,,
3	2 ,,	20 ,,	20 ,,

Average onset of Paraesthesia	1.4 min
Average onset of Sensory loss	16.5 ,,
Average onset of Motor loss	17.7 ,,

Table—III.

Showing Duration of Anaesthesia in Supraclavicular block.

Cases with Adrenaline

No.	Loss of pain sensation	Return of muscle tone
5	60 minutes	90 minutes
7	80 ,,	90 ,,
4	75 ,,	105 ,,
1	Nil	Nil

Average duration of loss of pain sensation	71.6 minutes
Average duration of return of muscle tone	95 minutes

Cases without adrenaline

3	45 minutes	60 minutes

IV) and the degree of sensory and motor block. No gross cardiovascular derangement except mild tachycardia and elevation of systolic and diastolic pressure which was insignificant. Respiratory pattern was unchanged.

Table—IV.

Showing Duration of Anaesthesia in Axillary block.

Cases with adrenaline

No.	Loss of pain sensation	Return of muscle tone
12	60 minutes	80 minutes
6	80 ,,	120 ,,
3	130 ,,	150 ,,
Average duration of loss of pain sensation		90 minutes.
Average duration of return of muscle tone		116.6 minutes.
Cases without adrenaline		
9	40 minutes	45-50 minutes

Discussion

Considerable attention has been focused on the possible complication of pneumothorax in cases of supraclavicular block, and as a result axillary approach is advocated because of the reduced incidence of complications and high rate of success. Axillary approach is also easier to teach and more acceptable to the patient because of smaller needle at the site of injection. Brachial plexus block provides good anaesthesia for a wide range procedure on the upper extremity, There is less interference with normal metabolic processes and vital functions of patient. It has also advantages over those patients who have serious systemic diseases such as hypertension, heart, lung, kidney and diabetic diseases. It is an anaesthesia of choice for emergency operations where the patient has recently ingested food and the grave complications of vomiting and aspiration must be avoided.

No attempt was made to compare the supraclavicular and axillary approaches of barchial plexus block in this study. Both approaches were locally found to be effective. There was only one failure in the supraclavicular group. No major complication was found in either group.

In conclusion, in countries like our Bangladesh expensive oxygen plant, general anaesthetic agents and anaesthesia machines could not be provided to many districts and upazillas. In northern part of the country, the fractures of the upper extremity is no less during peak seasons of fruit harvesting (mango, lichi, jack fruits etc) and also industrial accidents are no less with the development of the country. If an efficient brachial plexus block could be practised then these fractures and other emergencies of upper extremities could be managed more quickly with minimum cost and without expensive anaesthetic equipments.

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TRYPTICASE SOY BROTH VERSUS BILE SALT BROTH : A COMPARATIVE STUDY FOR ISOLATION OF SALMONELLA FROM BLOOD

S M Z H Asna, K M Rahman, M R A Miah, T Hussain

Key Words :

Bile Salt broth, Trypticase Soy broth, Salmonella.

Summary :

Blood samples from 26 clinically suspected cases of typhoid fever were cultured simultaneously in bile salt broth (BSB) and trypticase soy broth (TSB). Salmonella typhi were isolated from a total of 12 (21.4%) cases. Blood culture was positive in 10 (8.33%) cases in TSB and 9 (75%) in BSB. In BSB 89% (8 out of 9) cases were positive within 24 hours whereas in TSB only 40% (4 out of 10) cases were positive within 24 hours. Contamination was only 1.8% in BSB and 8.9% in TSB.

Introduction :

Isolation of *S typhi* by blood culture is the absolute proof of typhoid fever. Various media such as glucose broth, trypticase soy broth, bile salt broth and bile broth have been used for the isolation of Salmonella from blood. In a comparative study, bile broth was found to be superior to trypticase soy broth for isolation of Salmonella from blood (Kaye et al, 1966). Watson (1956) also recommended the bile salt broth as the medium of choice for cultivation of *S. typhi* from blood.

Addition of sodium polyanethol sulphonate, a complement destroying agent, to blood culture medium increases the chance of isolation of *S. typhi* from blood, especially where volume of medium is limited (Watson, 1956).

In the present study, effectivness of the bile salt broth and trypticase soy broth containing sodium polyanethol sulphonate as the anticoagulant instead of sodium citrate was tested for isolation of Salmonella from blood.

Materials and Methods :

Materials : (a) Blood samples from 56 clinically suspected typhoid fever patients of Dhaka Shishu Hospital and Institute of Post-Graduate Medicine and Research, Dhaka. (b) Biphasic media—(i) Trypticase soy agar slant (15 ml)/trypticase soy broth

1. Shah Md. Zahurul Haque Asna
2. Kazi Masihur Rahman, Professor & Head
3. Md. Ruhul Amin Miah, Assistant Professor

Department of Microbiology, Institute of Postgraduate Medicine a Research. Dhaka.

4. Tahmina Hussain, Associate Professor, Department of Pathology, Dhaka Medical College, Dhaka.

(15 ml) in castaneda bottle (Cheesbrough, 1984). (ii) MacConkeys' agar slant (15 ml) /bile salt broth (15 ml) in castaneda bottle (Cruickshank et al, 1975; Watson, 1978).

The solid phase of about 15 ml were introduced into each castaneda bottles, autoclaved, solidified in inclined position and then 15 ml broth sterilized by autoclave was aseptically introduced into the bottle. Each batch of media was tested for sterility by incubating at 37°C for 4 days before it is stored at 4°C.

Blood was collected aseptically from the patient and about 3 ml of which was introduced into each of the two media. The media were then incubated at 37°C in upright position and examined daily until growth appears. Subculture was done on MacConkey's media. After each examination, in case of no growth, bottles were shaken gently and tilted so that the broth covered the solid phase for a few seconds. In case of negative culture the media was discarded after four weeks (Watson, 1978).

Result :

Results of blood cultures from 56 cases in BSB and TSB are shown in Table—I. By using both the media Salmonella was isolated from 12 (21.4%) cases. By using TSB alone 10 (17.1%) cases and by using BSB alone 9 (16.9%) cases were isolated. A few cases were missed by using either of the media.

The incubation time by which blood cultures became positive is shown in Table-II. In 89% cases growth was obtained in 24 hours in BSB whereas only in 40% cases growth was positive in 24 hours in TSB.

From Table-III it is seen that the rate of contamination in TSB was five times more than in BSB.

Table—I

The rate of isolation of Salmonella in BSB and TSB in 56 Patients

Media	No. of Cases positive for S. typhi	No. of Cases missed
BSB & TSB used Simultaneouly	12 (21.4)	—
BSB used alone	9 (16.1)	3 (5.4)
TSB used alone	10 (17.9)	2 (3.6)

Note : Figures within parenthesis indicate percentage.

$P > 0.05$; comparison between rate of isolation by BSB and TSB.

Table—II

Incubation time by which blood cultures became positive in BSB and TSB

Media	No. of positive cases at different incubation time			average incubation time(hours)
	24 hr	48 hr	72 hr	
BSB (n=9)	8 (89)	1 (11)	0	26
TSB (n=10)	4 (40)	5 (50)	1 (10)	40

Note : Figures within parenthesis indicate percentage.

$P < 0.01$; comparison between rate of positive blood cultures within 24 hours of incubation in BSB and TSB.

Table—III

Rate of contamination of blood culture in BSB and TSB in 56 Cases

Media used	No. of Contaminated case	Percentage
BSB	1	1.8
TSB	5	8.9

P> 0.05; comparison between rate of contamination of BSB and TSB.

Discussion :

In the present study by using bile salt broth (BSB) 89% of positive cultures were obtained within 24 hours and the rest within 48 hours of incubation with an average incubation time 26 hours. On the other hand in trypticase soy broth (TSB) only 40% positive cultures were obtained within 24 hours, 90% within 41 hours and all within 72 hours of incubation with an average incubation time of 48 hours. The difference in the rate of growth within 24 hours in these two media is statistically significant (P<00.01). Superiority of bile salt broth over trypticase soy broth is probably due to property of bile salt broth which inactivate the bactericidal activity of blood and lyse the leucocytes or clots containing the organisms (Kaye et al, 1966). Similarly Kaye et al (1966) by using trypticase soy broth found no positive culture within 24 hours, 55% positive cultures within 72 hours and 100% within seven days of incubation. By using bile salt broth Watson (1955) found 100% positive cultures within 16 days of incubation with average incubation time 4.8 days. Short time incubation of positive cultures in our study in comparison to those of the above two workers were possibly due to our use of sodium polyanethol sulphonate in culture media as anticoagulant which cause destruction of complement, neutralise some antibiotics and have no inhibitory effect on the organisms (Cheesbrough, 1984 ; Watson, 1956). The above workers used conventional sodium citrate as anticoagulant which have no such activities on complement and antibiotics. Moreover, sodium citrate to some extent is inhibitory to the organisms (Cruickshank et al, 1975). Bile salt broth is also superior to trypticase soy broth in inhibiting the contamination of the media. The rate of contamination in bile salt broth was 1.8% as against 8.9% in trypticase soy broth. However, the difference is not statistically significant (P> 0.05). Kaye et al (1966) found 11% contamination in trypticase soy broth as against no contamination in bile salt broth. Cause of low contamination in bile salt broth is dueto inhibitory effect of bile salt to many common bacterial contaminants (Watson, 1955). By using both bile salt broth and trypticase soy broth simultaneously we were able to obtain positive blood cultures in 21.4% as against 16.1% in bile salt broth and 17.9% in trypticase soy broth when used alone. Although the difference is not statistically significant (P> 0.05), it has been observed that some positive cases are missed if only one media is used. Similar findings were also observed by Kaye et al (1966). These findings suggest that if both the media are used the rate of isolation is higher than if any one of the two media is used.

It can be concluded that though BSB is found superier to TSB if incubation time

and incidence of contamination is considered, the difference of isolation rate between two media is not significant. So, in case of pyrexia of unkown origins TSB should also be included alongwith BSB for blood culture.

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ACUTE VOLVULUS OF THE SIGMOID COLON: REVIEW OF 22 CASES—A PRELIMINARY REPORT

M. A. Majid

Key Words :

Acute Volvulus, Primary resection, Hartmann's procedure, Mucus Fistula, Bruusgaard Technique.

Summary :

Review of 22 cases of volvulus of the sigmoid colon admitted in the Surgical unit-II of Mymensingh Medical College Hospital from April '87 to August '88 are carried out. The volvulus of the sigmoid colon is a fairly common cause of intestinal obstruction constituting about 17% of the admissions with acute intestinal obstruction.

Diagnosis is easy with a careful history, clinical examination and plain X-ray of the abdomen. Mortality is about 9%. Conservative treatment using Bruusgaard Technique in early cases is associated with high incidence of recurrence. Primary resection and anastomosis is associated with fatality. Therefore, primary resection with second stage anastomosis two to three weeks later are advocated.

Introduction :

Volvulus of the sigmoid colon is an important cause of intestinal obstruction in some Asian and African countries notably in India, Pakistan and Ghana (Anderson, 1956; Ahsan & Rahman, 1967 and Easmon and Lahiri, 1963). The incidence in the developed countries varies from 2.5% in the U. K. to 3% in Germany and 5% in Russia. In the present series of 123 cases of intestinal obstruction admitted over a period of one and a half years the incidence of volvulus of the sigmoid colon is 17%. Unfortunately no other reliable statistics about the incidence of volvulus is available in our country.

M. A. Majid, FRCS, Professor of Surgery, Rajshahi Medical College, Rajshahi.

Materials and Methods :

Mymensingh Medical College has got inter alia three surgical units that cater surgical services to greater Mymensingh district and north eastern part of Tangail district and bordering part of greater Sylhet district. Only the patients who were admitted under surgical unit-II of Mymensingh Medical College Hospital from April '87 to August '88 were included in this study. All the case notes of the patients with intestinal obstruction were crosschecked with record of the ward and the operation register. One hundred and twenty three cases of intestinal obstruction were dealt with during this period. Of these, 22 were due to volvulus of the sigmoid. Thus the incidence of volvulus of the sigmoid colon is about 17% of the total cases of intraabdominal intestinal obstruction. This study does not include the cases with clinical diagnosis of volvulus who did not subject themselves to surgery or died wihthout surgery.

Clinical Features :

Age of the patients ranged from 30 to 89 years. Sex ratio was M : F=15 : 7.

All male patients except one were farmers in the low socio economic group, and all the female patients were housewives.

The clinical features with investigations and results are summarised in table-I.

Presenting symptoms in all cases were abdominal pain, distention and constipation which varied in duration from 2-10 days. Vomitting was a rare symptom. One patient had a scar of left paramedian incision supposedly for sigmoid colectomy for volvulus done 30 years back. None of the patients had any psychiatric history or had been an inmate of any mental hospital as is the case in some patients with volvulus in the western world.

On clinical examination the most outstanding feature was abdominal distention. This was mostly left sided and resulted in respiratory distress in some patients. Tenderness was present locally in a proportion of patients.

Bowel sounds varied from loud borborygmi in early cases to complete absence in late cases. Rectal examination revealed an empty balloon without rectum.

Only useful diagnostic investigation was abdominal X-ray in erect and supine positions. Five cases were diagnosed clinically without the aid of any radiological investigation.

Treatment :

One patient was treated conservatively by Bruusgaard Technique. This involves reduction of the volvulus by passing a flatus tube through a rigid sigmoidoscope inflating the bowel gently via a bellows connected to the sigmoidoscope. The rest of the patients were offered operative treatment.

Ten patients had primary resection and anastomosis. Four patients had resection with temporary end colostomy and mucus fistula and seven patients had resection with Hartmann's procedure i. e. temporary proximal end colostomy with distal end of the bowel closed and left inside the abdomen. The last two groups of patients had continuity of the bowel restored by secondary anastomosis 2-3 weeks later. None had Paul-Mikulicz exteriorisation of the bowel.

Results :

There were two deaths in the whole series. This gives a mortality rate of 9%. Both the deaths occured in the group who had primary resection and anastomosis. One died of septicaemia following anastomotic leak and the other died on the operating table. There was no death in the group who had either Hartmann's procedure or end colostomy with mucus fistula.

Discussions :

Volvulus of the sigmoid colon is a fairly common cause of intestinal obstruction. It is more common in male than in female. The reported male predominence in various series has been 61% (Bruusgaard, 1947) 89% (Porrit, 1950) and 83.33% (Easmon and Lahiri, 1963). In our series the male predominence has been 68%.

The wider pelvis and lax abdominal wall in female following repeated pregnancy not only provides more room for the loops of bowel to move about but also allows spontaneous reduction of volvulus in early cases.

The actiology of the volvulus of the sigmoid colon is unknown. However, a long redundant sigmoid colon with a freely mobile mesosigmoid whose limbs are close together, constipation with loaded colon and congenital band or adhesion have been incriminated as predisposing factors that lead to volvulus of the sigmoid colon.

At laparotomy common findings were grossly elongated and thickened sigmoid colon with its limbs closely approximated in the pelvis. There were no congenital band or adhesion.

The clinical diagnosis of the volvulus of the sigmoid is reasonably easy if one does have recourse to careful history and clinical examination. Plain X-rays of the abdomen are helpful in diagnosis. But it is not always necessary as noted in five patients in this series.

The treatment of volvulus is contentious. An ideal treatment should achieve the twin aims of relieving obstruction and preventing recurrence. Bruusgaard Technique is suitable for reduction of volvulus in early cases where there is no clinical evidence of peritonism or peritonitis. This allows the clinician to temporise things to get the patient in a fit condition for definitive surgery. This technique has been used in one patient who was an old cardiac cripple unfit for general anaesthesia and surgery.

Primary resection and anastomosis advocated by Aird (1957) has been done in 10 cases in this series. But it is associated with fatality in the hands of surgeons-in-training who usually perform this operation in emergency situation.

The mortality in the present series was 9%. Although the mortality in the series of Aird (1957) was 50% and in those of Ahsan and Rahman (1967) and Shephard (1968) were 7.9 and 14% respectively. It is our experience that sigmoidectomy with Hartmann's procedure or temporary proximal end colostomy with mucus fistula followed by restoration of continuity of the bowel by a secondary anastomosis is safe in any hand. It is advocated as a surgical treatment of choice for acute volvulus of the sigmoid colon.

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APPLICATION OF BAROTHERAPY IN DERMATOLOGY

M Z Hossain, R S Babayants

Key Words :

Oxygen, Barotherapy, Hyperbaric oxygenation.

Summary :

Barotherapy was used for the treatment of chronic and persistent dermatoses previously treated with various types of antibiotics, corticosteroids and cytotoxic drugs. A total of 210 patients of both sexes between 18 and 65 years were treated. The treatment was found to be very effective in most of the cases, except in 14 cases. No side effect or complication could be confirmed either by clinical observation or by a complex of multiple laboratory tests in the patients treated. The modes of action of the method applied were discussed.

Introduction :

Owing to the chronic nature of many skin diseases, the treatment and hence the usage of drugs in these patients tends to be prolonged much more than in other systemic diseases. Hence, the occurrence of toxidermatoses tend to be more frequently noticed amongst skin patients. (Dovghanski et al, 1974; Bandman et al, 1972 and Wechsler and Mckeespor, 1954). Faced with the frequent occurrences amongst our patients of medicamentous toxidermatoses as well as with non-respone by some patients to the conventional medical treatment, we planned to use as well as evaluate barotherapy amongst our patients, who have either failed to respond to the conventional treatment or on those who were specifically selected to be treated as such in order to avoid the occurrence of medicamentous toxidermatoses.

Oxygen has been in use as a means of medicinal substance over 150 years (Antoneev and Nomnoeeve, 1986) and barotherapy-oxygen treatment at high atmospheric pressure (OHP) was first used by Boerem in 1956. Since then the method has been used by various authors all over the world. Barotherapy has been found to be effective for the treatment of poorly healing or persistent ulcers, especially as the suppressor not only of anaerobic but also of aerobic infections (Lukich, 1978). In leg ulcers of arteriosclerosis aud varicose characters the method was very useful (Illingworth, 1962 and Slack et al, 1966). Other than leg ulcers, many skin diseases have been treated by barotherapy. Barr, Enfors and Eriksson (1972) have reported effective results of barotherapy in scleroderma, pyoderma gangrenosum, Felty's Syndrome and bullous haemorrhagic erysipelas in which previous methods of therapy

Mohammed Zahid Hossain, MBBS., Ph.D.
Robert S Babayants, D.Sc.
Dermatology & Venereology Clinic, The Sechenov 1st Moscow Medical Institute, Moscow, USSR.

had been unsatisfactory. Positive results in eczema and atopic dermatitis were also noted (Pantglev, 1981). Kologuve (1983) has reported good response of arthropathic psoriasis to barotherapy. In scleroderma, the method has been applied by many authors (Grabski, 1982). In the last few years barotherapy has found its application in many skin diseases such as psoriasis. lichen planus, eczema, atopic dermatitis, toxiderma alopecia and vasculitis (Babayants and Matreeva, 1978).

In the present study the use of barotherapy has been extended to 210 patients with various skin diseases.

Materials and Methods :

The subjects of this study were regular dermatological patients who were attending the clinic either on outpatient basis or were admitted into the wards. The selection of patients for the barotherapy was done on the basis of the following factors :

1. patients in whom there were failure of long trial of conventional therapy.

2. patients who developed complications due to the usage of corticosteroids and cytotoxic drugs.

3. patients with diseases like scleroderm and allergic dermatitis of unknown aetiology where there were no satisfactory medical treatment.

Diagnosis of the various skin conditions were made by specialists, and the criteria for deciding the efficacy of treatment were based on the physician's clinical observations before and after the treatment as well as on the subjective statements of patients especially in cases where the symptoms included presence of pruritus. Detailed clinical and laboratory investigations were carried out before and after the treatment of the patients.

Treatment Modality :

One-man plexiglass pressure chambers made in USSR were used for barotherapy. The chambers were filled with pure oxygen. The period of each exposure in the chamber was one hour. The pressure was increased in the chamber from 760mm of Hg to 2000mm of Hg (almost 3 atma) in 10 minutes time and kept constant for one hour and was then lowered in over a five minutes period to 760mm of Hg (normal atma). A continuous flow of oxygen 300L/min was passed through the chamber during the treatment to avoid rebreathing of co_2. As a routine, all patients had their lungs controlled by x-ray and the eardrums and the enstachian tubes were checked before the treatment. The course of the treatment was one exposure per day for 15 days.

Results :

In all, 210 patients received barotherapy. Out of them 106 (50.4%) had psoriasis, 46 (21.9%) had ulcers of the lower limbs, 25 (11.9%) had allergic conditions of the skin, 19 (9%) had lichen planus and the remaining 14 (6.6%) were grouped together as having scleroderma and Schamber's disease (See table).

Of the psoriasis patients so treated 25.4% were clinically cured while 68.8% had a slight improvement of their conditions and there were no improvement at all in 5.6%. Of the ulcer patients, 54.5% were clinically cured while 36.9% had a slight improvement and the treatment had no

Table—I

Showing Results of Barotherapy (OHP)

Diagnosis	No. of Patients	Clinical Remission	Slight Improvement	No. Effect
Psoriasis	106 (50.4%)	27 (25.4%)	73 (68.8%)	6 (5.6%)
Ulcers	46 (21.9%)	25 (54.5%)	17 (35.9%)	4 (8.6%)
Allergic Dermatitis	25 (11.9%)	20 (80%)	4 (16%)	1 (4%)
Lichen Planus	19 (9%)	14 (73.6%)	4 (21.1%)	1 (5.3%)
Simple Dermatoses (Schamber's Disease, Scleroderma)	14 (6.6%)	7 (49.9%)	5 (35.7%)	2 (14.3%)
Total	210	93	103	14

Key : Clinical remission—Clinically no signs and symptoms of diseases were present.
Slight improvement : Clinically the signs but with slight regression.
No effect—clinically no change of the signs and symptoms of the diseases.

effect on 8.6%. In the allergic conditions, 80% had a total clinical remission while 16% had slight improvement and in 4% the treatment was not at all effective. In patients with lichen planus, 73.6% were clinically cured, while slight improvement and no effect was observed in 21.1% and 5.3% respectively. In the last group of simple dermatoses 49.9% were cured while 35.7% had slight improvement and 14.4% had no improvement.

Discussion :

It became obvious from our result that a lot had been achieved through the application of barotherapy in the various groups of patients since most of the cases that were so treated, had failed to respood satisfactorily to the conventional treatment. Clinical remission was observed in a higher percentage of those with lichen planus. The effect of barotherapy on ulcer patients can be considered as fair. Only slight improvement was observed in the majority of those with psoriasis.

Hypoxia plays a great role in the pathogenesis of systemic as well as cutaneous dieases. Therefore, to combat such condition barotherapy is essential (Vandischeev, 1981) but the practical application of the method is limited because of its counteracting local tissue hypoxia due to restricted peripheral circulation (Barr, 1972).

Barotherapy has both stimulating as well as inhibitory effect on the biological process of the organism in its normal and pathological condition (Vandischeeve, 1981). An increase in the partial pressure of the oxygen in the lungs from 760mm to 1500mm of Hg would cause a proportionate greater

quantity of oxygen to be taken by the arterial blood in physically dissolved form. It is thus possible, at least partly, to compensate for a decrease in the blood flow by an increase in the oxygen content of the blood. Further, the incraesed partial pressure of oxygen in the blood will increase its capacity to diffuse into the tissues from the vascular bed. A direct local effect of the ambient oxygen on open and often infected wound surface is also considered to improve the healing conditions, probably due to local vascularization. To achieve a sufficiently high oxygen pressure, the atmospheric pressure around the patient has as arule to be increased to one to two atmospheres gauge pressure (atmg) corresponding to two to three atmo spheres absolute pressure (atma). There is no risk of decompression sickness due to nitrogen bubbles appearing in the blood when the pressure is lowered, as only oxygen is breathed. The greatest risk during the treatment is oxygen intoxication. In other words, the success of treatment of barotherapy depends on its accurate dosage like any other substance used for medical treatment. The oxygen fits or carmps, however, quickly disappear on lowering the pressure. We did not observe any side effect in any of the patients subjected to this treatment.

Barotherapy can potentiate the action of antibiotic when used together (Grabski, 1982).

In conclusion, the result from our clinical observation which spanned for a period of over five years, seems to be very encouraging. Of primary importance is our observations that the recurrences of lesions in patients treated with barotherapy were not noticed as more frequently as in those who were treated with either corticosteroid or cytotoxic drugs. Furthermore, side effects resulting from barotherapy were also not noticed amongst our patients as it usually happens after long term treatment with steroids. We, therefore, conclude that barotherapy can serve as very useful device for the prophylaxis of medicamentoses toxidermatoses.

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PATTERN OF ENT DISEASES IN RURAL BANGLADESH

M N Amin, W A Chowdhury, M S Sheikh, M Abdullah

Key Words :
ENT diseases, Rural area.

Summary :
ENT diseases diagnosed in four rural camps are presented and compared with findings of both hospital based studies and community surveys.

Introduction :

Diseases of ear, nose and throat are quite common in Bangladesh. No survey has yet been done to determine the exact prevalence of E N T diseases in relation to other diseases and no national statistics is available regarding the relative incidence of different E N T diseases in respect of their frequency. It is very important to have a first hand knowledge about the magnitude of a problem to organise any service for care delivery. So, it is a dire necessity to have some study to know the present status of E N T diseases in Bangladesh.

To survey the entire population to find out the incidence of E N T diseases is a gigantic and costly task and is beyond our scope. We have attempted to identify the pattern of E N T diseases amongst the population by holding E N T camps in rural areas of four different districts of Bangladesh. This will give some idea about the pattern of diseases prevailing in Bangladesh and will provide base line informations to others to make similar attempts so that ultimately we can come to a rational conclusion by more reliable information in this respects. This will be of great help in planning the future programmes of developing medical and other related manpower in this speciality with the hope of offering better treatment to the needy people of this country to make them healthy.

M N Amin, Professor, ENTD, IPGMR.
W A Chowdhury, Asstt. Professor, ENTD, Barisal Medical College
Md. Soleman Sheikh, R/S, ENTD, Dhaka Medical College Hospital.
Md. Abdullah, Student, FCPS, ENTD, Part-II, IPGMR, Dhaka.

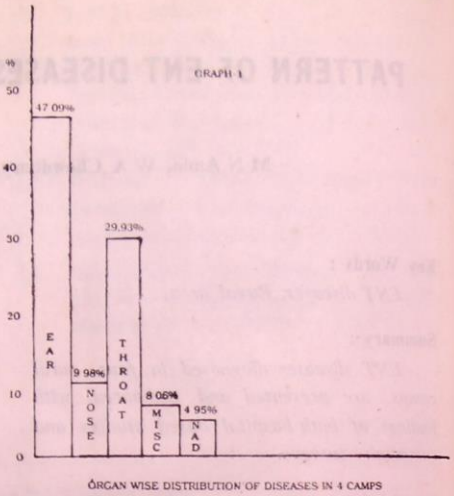
Materials and Methods :

The camps were organised by local interested social workers and leaders with the help of various service organisations who were also incharge of publicity and management of the camps. A team of E N T specialists and ancilliary staffs from Dhaka conducted the study. The diagnostic criteria was clinical examination and simple tests, like tunning fork test, indirect laryngoscopy, posterior rhinoscopic examination etc. Inadequacy and non-availability of investigations made us restricted to include diseases where no confusions were present clinically. The doubtful cases were listed here under the

heading Miscelleneus. Thyroid enlargement was included in the list as the patients with goitre attended the camps and were of significant number.

Results :

Total number of cases seen in four camps and their organwise distribution is shown in graph-I and table-I. Disease pattern as seen in four camps are shown in graph-II and table-II.



Table—I

Organwise Distribution of Diseases in four Camps

Bhaluka (Mymensingh)		Ghugudia (Dhaka)		Bhola (Bhola)		Golapgonj (Sylhet)		
No.	%	No.	%	No.	%	No.	%	
226	59·31	121	60.50	55	48.24	188	33.52	EAR
27	7.08	19	9.50	20	17.54	59	10.57	NOSE
108	28.34	35	17.50	18	15.79	214	38.35	THROAT
14	3.67	18	9	14	12.28	55	9.86	MISC
6	1.57	7	3.50	7	6.14	42	7.53	NAD

Total Number of Patients in four Camps—1253 (100%) NAD=no abnomality detected.

Ear—590 (47.09%)

Nose—125 (9.98%)

Throat—375 (29.93%)

Misc—101 (8.06%)

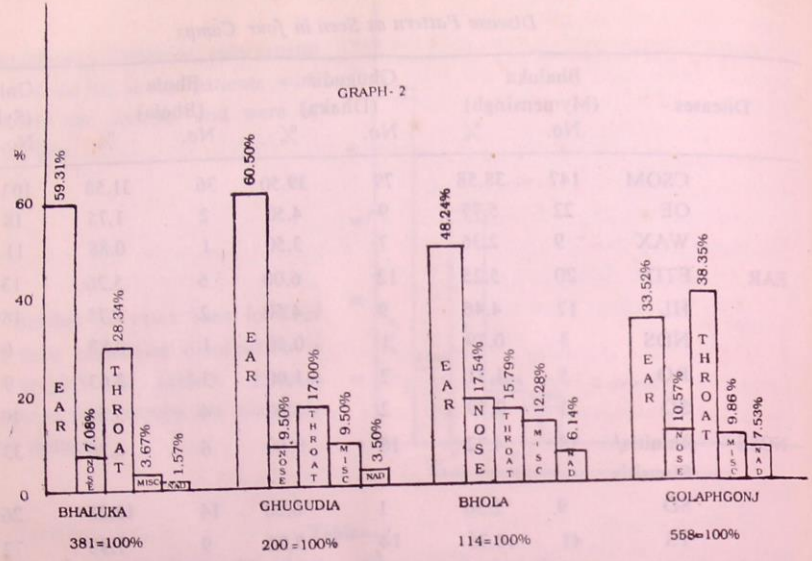
NAD—62 (4.95%).

Table—II

Disease Pattern as Seen in four Camps

Diseases		Bhaluka (Mymensingh) No.	%	Ghugudia (Dhaka) No.	%	Bhola (Bhola) No.	%	Golapgonj (Sylhet) No.	%
EAR	CSOM	147	38.58	79	39.50	36	31.58	103	18.46
	OE	22	5.77	9	4.50	2	1.75	18	3.23
	WAX	9	2.36	7	3.50	1	0.88	11	1.79
	ETD	20	5.25	12	6.00	6	5.26	13	2.33
	HL	17	4.46	9	4.50	2	1.75	18	3.23
	NDS	3	0.79	1	0.50	1	0.88	6	1.08
	RO	5	1.31	2	1.00	3	2.63	9	1.61
	SO	3	0.79	2	1.00	4	3.51	10	1.79
NOSE	Rhinitis/ Sinusitis	18	4.72	18	9.00	6	5.26	33	5.91
	SD	9	2.36	1	0.50	14	12.28	26	4.66
	TS	41	10.76	14	7.00	9	7.90	72	12.90
THROAT	AD	9	2.36	6	3.00	5	4.39	38	6.81
	GLS/ANE	24	6.30	13	6.50	4	3.50	36	6.45
	GOITRE	34	8.92	2	1.00	00	00	68	12.19
	MISC	14	3.67	18	9.00	14	12.28	55	9.86
	N A D	6	1.57	7	3.50	7	6.14	42	7.53
		381	100	200	100	114	100	558	100

CSOM (Chronic Suppurative Otitis Media)
OE (Otitis Externa)
ETD (Eustachian Tubal Dysfunction)
HL (Hearing Loss)
NDS (Non Development of Speech)
RO (Referred Otalgia)
SO Secretory Otitis)
SD (Septal Deviation)
TS (Tonsillitis)
AD (Enlarge Adenoid)
GLS/ANE (Glossitis/Anaemia).
MISC (Miscellaneous)



ORGAN WISE DISEASE PATTERN AS SEEN IN 4 CAMPS (SEPERATELY)

Discussion :

Our findings in the E. N. T. camps organised in the rural areas show similartiy in the prevalence of different E. N. T. diseases to the findings of Majed (1979) conducted in the out patients department of Dhaka Medical College Hospital. In his study diseasewise comparison was not done. In our study pattern of different E N T diseases were found to be almost similar in all four camps.

In Sylhet camp throat diseases were found to be more prevalent whereas ear diseases were found more frequently in other three camps. An interesting finding in Sylhet camp was that there was high incidence of goitre even higher than in Mymensingh which is a high endemic goitre zone. This high incidence of goitre is inconsistent with the finding of study carried out in our country by the Institute of Nutrition and Food Science (INFS) of Dhaka University in 1975-76 (Ahmed et al, 1983 and Ahmed et al, 1977) but this finding is quite in conformity with the findings of Evered (1976) where he has found that incidence of goitre is high amongst high lander than the offshore areas due to deficiency of iodine content in their food.

Acknowledgement :

We express our gratitude to the Director, Dhaka Medical College Hospital for allowing the ENT team to attend the camps with

diagnostic instruments of the Hospital. We are also thankful to different social organizations, local leaders, ancilliary staffs who extended their co-operation to make our camps successful.

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USE OF GLUCO-CORTICOIDS IN ECLAMPTIC MOTHERS

L Shamsuddin

Key Words :

Eclampsia, Gluco-corticoids.

Summary :

A clinical trial was conducted at Rajshahi Medical College Hospital, Rajshahi from June 1984 to February 1985 with fifty three eclamptic patients with an objective to find out a suitable adjuvant therapy in additian to conventional treatment, used in eclampsia. Maternity summary monitoring card developed at Family Health International were used to record relevant information and data were analysed at Family Health International. Twenty four patients were given Glucocorticoids as an adjuvant therapy while 29 did not receive cortisone. The severity of maternal disease, gestational age at delivery and obstetrical management was similar in both groups. Notable differences were observed in the result. In group receiving Gluco-corticoids 95.8% of patient discharged alive and well with less number of still births compared to 51.7% in the group who did not receive corticosteroids. There was more still births in later group.

The results of this study also shows that antepartum eclampsia is more common among the low socio-economic primigravida patient and they respond well if cortisone can be provided in early part of the disease,

Dr Latifa Shamsuddin, Professor of Obs & Gynae. Sir Salimullah Medical College & Mitford Hospital, Dhaka.

Introduction :

Various hypotheses have been postulated regarding the aetiological factors of eclampsia. Amongst them hypersensitivity is regarded as one of the most important. According to a study of TR Verma (1982), pregnancies complicated by hypertension and pre-eclampsia develop high serum uric acid level. It is also known that in eclampsia Glomerular Filtration Rate (GFR) is decreased. This pregnancy hypertension may be associated with a defect in immunological mechanism, involving the normal foetomaternal host response. Pre-eclampsia has some features of immunocomplex disease since there is deposition of compliment and immunoglobulins in placental bed vasculatures and glomeruli of kidneys. This immune complex causes activation of intravascular coagulation and cerebral hypoxia due to arteriolar spasm following hypertension in case of convulsion. Cerebral oedema is another factor. Cerebral blood flow is normal in pre-eclampsia but reduced during coma of eclampsia. Cerebral dysrythmia is common in pre-eclampsia and manifested as hyperreflexia. Increased vascular resistance in brain may account for dull sensorium of pre-eclamptic patients. Bizarre generalised convulsions may reflect extensive cerebral oedema, hypoxia or biochemical alterations of the central nervous system.

Cortisone causes reduction of cerebral oedema and supresses hypersensitivity reaction. It is used for the treatment of nephrotic syndrome, where it causes increased GFR. It is also used for the treatment of gouty arthritis where it reduces serum uric acid level. With this background in view it was thought that cortisone might be of value if used with other anticonvulsant drugs as an adjuvant therapy in eclampsia.

Methodology :

The study was conducted at Rajshahi Medical College Hospital, Rajshahi from June 1984 to February 1985. Fifty-three eclamptic patients were divided into two groups; 29 patients in group-A received only conventional therapy and 24 patients in group-B received cortisone in addition to conventional therapy. The cortisone preparation used in the study was dexamethasone 5 mg in ampoules of 1 ml. This was given by intramascular injection six hourly for first 12 hours then 12 hourly for next 24 hours and then once in the next 24 hours. Blood pressure, respiration frequency of fit, level of consciousness, amount of urine passed, oedema, haematuria, albuminuria and haemoglobin level were recorded and reviewed from time to time.

In addition to above, age of the patient, occupation and education of both husband and wife, monthly income, socio-economic condition, number of previous pregnancies, previous obstetric history and outcome and managment of the present pregnancy were also recorded.

Results :

Among 53 eclamptic patients there were 46 primigravida. Eclampsia was most ccmmon in the age group of 15-19 years, followed by those of 20-24 years age. In this study eclampsia was found to be more common in rural areas and overcrowded

Table—1

Treatment Response During Discharge from the Hospital

Treatment Response	With Cortisone (N=24)		Without Cortisone (N=29)		Total (N=53)	
	No.	%	No.	%	No.	%
Cured Completely	23	95.8	15	51.7	38	71.7
Cured with Complications :						
Psychosis	0	0.0	8	27.6	8	15.1
Persistent Albuminuria	1	4.2	0	0.0	1	1.9
Haematuria and Hypertension	0	0.0	1	3.4	8	1.9
Albuminuria and Hypertension	0	0.0	1	3.4	1	1.9
Death	0	0.0	4	13.8	4	7.5

urban areas. It was also observed that cortisone group of patient showed good result if they could get the treatment earlier irrespective of blood preasure.

Birth Outcome :

In the group with cortisone 54.8% babies were discharged alive and well, and 45.2% were still births. Without cortisone therapy only 40.7% babies were discharged alive and the still birth rate was 59.3%. Out of 24 eclamptic mothers who were treated with cortisone, 23(95.8%) left the Hospital alive and were without any immediate complication. One mother developed persistent albuminuria and hypertension.

Those who were treated without cortisone, 15 were discharged alive and well, 10 recovered from eclampsia with some other complications still remaining (eight had psychosis, one had persistent haematuria and another one has albuminuria). Four patients in this group died after 24 hours of developing eclampsia. The difference between the outcomes of treatment was statistically significant.

Discussion :

During the period from 1969 to 1970 an animal study was done with the use of antepartum gluco-corticoids to reduce respiratory distress syndrome of the newborn (DeLemos et al, 1970, Wang et al, 1971 and Platzker et al, 1975). It was shown that short term cortisone therapy had no adverse effect on mothers, foetus and neonates (Ricks et al, 1980). The first application of this knowledge to the clinical setting was reported by Liggins and Howie in New-Zealand (1972.)

Lamont et al, (1983) have used antepartum glucocorticoids in patients, with severe hypertension and proteinuria. They have shown that administration of gluco-corticoids does not carry any increased risk to the mother or foetus. Rather it may have some beneficial effect.

James et al in 1980 showed that there was no valid maternal reason to withhold steroid therapy in those cases who need it.

The present study was conducted in two groups of patients well matched for severity of disease, gestational age and obstetric factors. The improvement and outcome cannot be explained by any factor other than the administration of cortisone. The management of hypertension, proteinuria, oedema and eclamptic fit were same in both groups.

The improvement seen in mothers treated with cortisone therapy might be due to the reduction in cerebral oedema, uraecemia and hypersensitive reaction. Cortisone might also have played some role in increasing GFR.

Those working in the field of obstetrics are constantly on the lookout for any method of treatment, that reduces the severity of pre-eclamptic toxaemia and eclampsia until a cause can be found out for this dangerous complication of pregnancy particularly in the developing countries. Any treatment protocol that gives some hope of improvement in this field is always appreciated. Surprisingly even in more recent years, treatment regime have been described in detail and disseminated widely without any derived data by which success or failure of this regime could be ascertained. While the treatment regime used in these 53 cases of eclampsia is emperic, there are considerable data, rather

than theory and dogma to justify the continuation of this clinical application.

The cumulative results presented now at least provide a standard against which the results of treatment with drugs and new treatment regime can be compared.

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NASOPHARYNGEAL CHORDOMA—A CASE REPORT AND REVIEW OF LITERATURE

N Bhattacharjee, F Rahman, A Quasem

Key Words :
Chordoma, Nasopharynx.

Summary :

Chordoma is a rare tumour and nasopharyngeal chordoma is still rarer. This case was diagnosed through clinical examination, peroperative findings and histopathological examination. It is of particular interest since nasopharyngeal chordoma, to our knowledge, has not been reported from Bangladesh as yet.

Introduction :

Chordoma is an uncommon tumour arising from notochordal remnants predominently in the sacrococygeal and sphenooccipital areas. It is a slow growing tumour, metastasizing rather uncommonly—chiefly in the terminal stages, if metastasizes at all. Its main malignant potential lies in the critical locations, locally aggressive nature and extremely high recurrence rate (Heffelfinger et al, 1973). Histologically, the differential diagnosis includes mucinous adenocarcinoma, chondrosarcoma, chondroma and in the sacrococcyx-myxopapillary ependymoma (Chambers et al, 1979).

Nilakanta Bhattacharjee, Asstt. Professor of ENTD, IPGMR, Dhaka.
Fazlur Rahman, Asstt. Professor Pathology, Rajshahi Medical College, Rajshahi.
Abul Quasem, Asstt. Professor of Pathology, Rajshahi Medical College, Rajshahi.

Case Report :

Mrs. F, aged 25 years, was admitted to the E. N. T. ward of Rajshahi Medical College Hospital on 15.6.1987 with the history of progressive continuous right sided headache for long one year. After two to three months she gradually developed hoarse ness of voice, dysphagia, difficulty in nasal respiration and pain in the right ear. At the same time she was feeling some sort of stiffness of the right side of the neck. But she did not have epistaxis or nasal discharge.

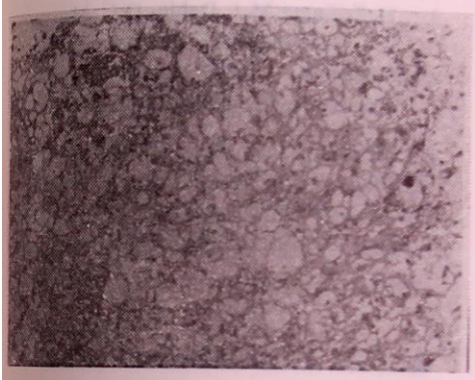
Clinical examination showed diplopia and paralysis of VI, X & XII cranial nerves on right side. Features of right Eustachian tube obstruction and right sided nasal obstruction were present. There was a firm, fixed, smooth surfaced elongated mass involving the nasopharynx, and right posterolateral wall of oropharynx.

Lateral view soft tissue X-Ray of the neck showed a light homogenous opacity at the base of the skull and prevertebral region but there was no apparent bony involvement.

Examination under general anaesthesia on 23.6.87 reveaied a capsulated firm fixed mass. After incising the thick capsule

a gelatinous, lobulated, semitranslucent grayish mass came out. Surgical debulking was done. Surprisingly she felt better afterwards, dysphagia and headache were particularly relieved but hoarseness remained the same.

But the patient had left the hospital herself before the final histopathological report was received. She did neither turn up for radiotherapy nor for follow up.



Fig—1. *Photomicrograph Shows many Vacuolated Physaliferous cells. H and E Stain, IIOX.*

Microscopically it was a malignant tumour. It consisted of groups of polyhedral cells arranged in a mucoid dense stroma. The empty vacuolated cytoplasm of many of the cells was quite conspicuous. The diagnosis was chordoma.

Discussion :

Chordomas are locally aggressive, rarely metastasizing tumours of aberrant notochordal tissue occurring in the sacrococcygeal (50%) spheno-occipital (35%) and vertebral (15%) areas. More than 1000 cases have been reported so far with an overall incidence of 4% of 2962 malignant bone tumours (Chambers et al 1979). Although no age is immune, cranial chordomas (M : F=1 : 1) characteristically have their peak incidence in the third and fourth decades of life while sacrococcygeal chordomas (M : F=2 : 1) occur primarily during the 5th and 6th decades. Familial chordomas have also been reported (Chambers et al, 1979). The clinical features embrace a wide range like headache, hearing loss, diplopia, dysphagia, dysphonia, deficit of III, IV and VI through XII cranial nerves (Heffelfinger et al, 1973). Cranial nerve involvement tends to be unilateral. The features reflect the specific sites of their extension e. g. sellar, parasellar, clival, retronaso-pharyngeal or paranasal sinuses like ethmoidal, frontal or sphenoidal (Heffelfinger et al, 1973). The cerebellum and pons are not exempt. Eleven out of 12 (92%) patients presented with a mass in the nasopharynx (Richter et al, 1975). A fourth of 155 patients had nasal involvement as against an eighth of pituitary involvement (Heffelfinger et al, 1973).

The duration of symptoms showed wide range of variation from two weeks to 14 years but was usually six months to three years (Heffelfinger, 1973).

Metastasis may occur in lungs, lymph nodes, liver, bone, skeletal muscle, pleura, brain, subcutaneous tissue, adrenals, skin, peritoneum and even be generalised (Chambers et al, 1979), in order of frequency. Surgery, length of survival, age and sex do not seem to play significant roles in the genesis of metastasis. However, the more locally aggressive chordomas which have been irradiated appear more likely to metastasize (Chambers et al, 1979).

Extensive surgery and radiaton has been the management of choice in recent years (Heffelfinger et al, 1973).

The average survival time from primary therapy for the sphenooccipital group was 7.4 years (Heffelfinger, 1973).

Acknowledgement :

We are very much grateful to Professor K M Nazrul Islam, Professor of Pathology, IPGMR, Dhaka for his kind confirmation of the diagnosis after reviewing the slide and also for reviewing the whole paper. We are also grateful to Director, Rajshahi Medical College Hospital for allowing us to publish this case report. We also thank Dr. Md. Saber Ali, M. O., Department of E. N. T. D, Rajshahi Medical College Hospital for his kind help in the management of the case.

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MASSIVE HAEMORRHAGE FROM JEJUNAL DIVERTICULA –A CASE REPORT

H M A Rouf

Key words :

Gastrointestinal Tract, Haemorrhage, Jejunum, Diverticula.

Summary :

An Interesting case of massive haemorrhage from jejunal diverticula diagnosed in a peripheral hospital is reported and its management discussed.

Introduction :

Massive bleeding from jejunal diverticula is a wellknown but very rare condition. Though there are a lot of reports about jejunal diverticula and its various complications but only 45 well documented cases with haemorrhage have been reported till 1982 (Shackelford and Marcus, 1960, Spiegel et al, 1982, Nobles, 1971, Altmeier et al, 1963 and Civetta and Dagget, 1967). Surgeon should specially look for it on laparatomy if cause of upper gastrointestinal bleeding is not found.

Jejunal diverticula are acquired pseudodiverticula devoid of muscular coat as present in true diverticula and found along the mesenteric border of the bowel. These are usually multiple and occurs after forty years of age (Spiegel et al, 1982 and Altmeier et al, 1963). They are frequently associated with diverticula of the colon and/or duodenum (Altmeier et al, 1963).

Incidence varies from 0.03 percent to 1.3 percent and have been found most exclusively in persons over 40 years of age. They are twice as common in man than woman. They usually occur in first 100 cm from ligament of Treitz (Spiegel et al 1982) and size varies from 1cm to 22 cm and stoma is much narrower than fundus (Nobles, 1971).

Jejunal diverticula have traditionally been regarded as incidental findings when they are encountered during barium study (Spiegel et al 1982). Jejunal diverticula, whether a definite clinical entity or simple anatomical malformation they are usually asymptomatic (Altmeier et al 1963). But they can cause acute massive bleeding or chronic blood loss leading to anaemia. They can be presented as pneumoperitoneum with perforation or obstruction as well as macrocytic anaemia and malabsorbtion (Altmeier et al, 1963 and Civetta and Dagget, 1967.

Case Report :

A 42 year old man was admitted in General Hospital, Sirajganj on 19th February, 1989

Hasan Md. Abdur Rouf, MBBS, FCPS (S)
Consultant Surgeon, General Hospital, Sirajganj.

with the history of dizzyness and tarry coloured stool thrice within an hour. Later he vomitted coffee ground coloured material. On admission there was no contributory finding except that he was severely anaemic. No history of peptic ulcer or alcoholism could be gathered. He said that he felt pain in the left side of the abdomen just lateral to the umbilicus after taking food. Blood transfusion was given. All conservative measures and transfusion of 10 units of blood in 48 hours failed to raise his haematocrit value and he was passing tarry coloured stool several times a day while he was in the hospital. A bleeding peptic ulcer was suspected and laparatomy was performed. At operation after gastrotomy no source of bleeding was found in the stomach and first part of duodenum. Four large diverticula were seen arising out of jejunum containing clotted blood pouching out from the mesenteric border. Proximal one was 27 cm away from ligament of Treitz. A 13 cm segment of jejunum containing all four diverticula was resected and bowel continuity was restored by side to side anastomosis. His recovery was uneventful. Till now he has got no problem and no recurrence of bleeding occurred. His pain which used to appear occasionally after taking meal has gone.

Discussion :

The haemorrhage from jejunal diverticula is an extremely rare condition (Shackelford and Marcus, 1960, Spiegel et al, 1982, Nobles, 1971, Altmeier et al, 1963 and Civetta and Daggett, 1967). Mahorner and Kisner (1947) and Mayo Baskin and Hagedorn (1952) have demonstrated the procedure of inflating jejunal diverticulum by finger pressure occluding the lumen to bulge these so that they cannot be easily missed or overlooked on exploratory laparotomy. Since the initial report by Sir Astley Cooper in 1807 the published incidence has varied considerably. Rosedale and Lawrence (1936) in their retrospective study found three cases out of 5000 autopsies but with air insufflation to aid in specific search they got four in 300 consecutive examinations. Noer (1960) showed that incidence becomes much more after the age of forty and under this age the incidence is rare.

First documented description of massive haemorrhage goes to Braithwaite in 1923 and the number of reports were published since then (Spiegel et al, 1982).

Barium studies of G. I. tract sometimes clearly delineate the case of jejunal diverticula. In case of bleeding angiography may help. There are five reported cases of angiographically demonstrated haemorrhage from jejunal diverticula. Superior mesenteric angiogram revealed these cases. Spigel et al (1982) tried to stop bleeding unsuccessfully by intra arterial pitressin in two out of their three cases. These patients required surgery. First angiographically demonstrated case of haemorrhage from jejunal diverticula was reported in 1969 by RP. Kitteredge and co-workers.

Haemorrhage from jejunal diverticula may mimick that of duodenal ulcer and colonic diverticula. There are several published reports of increased morbidiy due to prolongation of operative procedure or repetition of surgery required to establish these diverticulae as the bleeding site. There are also reports of unnecessary high morbidity and mortality not because of any

technical difficulty in resecting the involved segment but primarily as a result of delay in diagnosis (Shackelford and Marcus, 1960, Altmeier et al, 1963, Civetta and Dagett, 1967 and Silen et al, 1960).

The haemorrhage associated with these diverticulae can be assumed secondary to ulceration and erosion of the associated penetrating vessel as it happens in haemorrhage from colonic diverticula (Meyers et al, 1976 and Spiegel et al, 1982). In few isolated cases bleeding was secondary to ectopic gastric mucosa (Hanley 1972) or Neoplasm within the diverticular sac (Haggmark and Bystrom, 1973). Actual bleeding point in the diverticula has been demonstrated in very few instances. Though excision of the diverticula cures the condition and active bleeding was seen in the diverticula during the operation, in many cases, even by superior mesenteric angiography, no ulcer or erosion involving the vessel on its wall was seen (Shackelford and Marcus, 1960 and Spiegel et al, 1982). However, the mere presence of diverticulum should not necessarily imply that they are source of bleeding. Other common sites for haemorrhage should be looked for first but possibility of bleeding from jejunal diverticula should not be forgotten.

Acknowledgement :

My thanks goes to Mr. Zakiuddin Ahmed, Chief Librarian, National Medical Library and Documentation Centre, Dhaka who took lot of trouble to arrange the references to prepare this case report.

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COLLEGE NEWS

Examination :

Results of FCPS Part I, FCPS Part II and MCPS Examinations held in July, 1989 are given below :—

378 candidates appeared in FCPS Part I Examination held in July, 1989 of which 38 candidates came out successful. Subjectwise results are as follows :

Subjeet	Number appeared in Theory Examn.	Number qualified for Oral	Number passed
Medicine	70	26	16
Surgery	105	11	2
Obst. & Gynae	62	7	2
Paediatrics	43	13	5
Ophthalmology	41	13	4
ENT Diseases	17	2	1
Psychiatry	13	5	2
Radiology	3	1	1
Radiotherapy	2	2	1
Anaesthesiology	19	6	4
Clinical Pathology	3	0	0
Total	378	86	38

88 candidates appeared in FCPS Part II Examination in different subjects. List of candidates who satisfied the board of examiners is as follows :—

Roll No.	Name	Name of Medical College from where graduated	Subject
7	Dr. Md. Zilan Mian Sarker	MAG Osmani M. College	Medicine
13	Dr. Md. Rezaul Karim Khan	Sher-e-Bangla Med. College	Medicine
15	Dr. Md. Ridwanur Rahman	Chittagong Medical College	Medicine
18	Dr. Md. Ayub Ali Chowdhury	Dhaka Medical College	Medicine
31	Dr. Barendra Chakraborty	Dhaka Medical College	Medicine
35	Dr. T. I. M. Abdullah-Al-Faruq	Sher-e-Bangla Med. College	Surgery

39	Dr. Md. Ali Akbar	MAG Osmani M. College	Surgery
41	Dr. H. M. Shafiqul Alam	Rangpur Medical College	Surgery
42	Dr. Md. Akram Hossain	Dhaka Medical College	Surgery
43	Dr. Zahidul Haq	Dhaka Medical College	Surgery
47	Dr. Munshi Md. Mojibur Rahman	Dhaka Medical College	Surgery
49	Dr. Nausher Alam	Chittagong Medical College	Surgery
50	Dr. Shaheen Begum	Dhaka Medical College	Surgery
55	Dr. Omar Faruque Yusuf	Chittagong Medical College	Surgery
65	Dr. Md. Ruhul Amin	Dhaka Medical College	Paediatrics
66	Dr. Kazi Hafizur Rahman	Dhaka Medical College	Paediatrics
69	Dr. Saeedur Rahman	Dhaka Medical College	Paediatrics
71	Dr. Samina Mahmud	Dhaka Medical College	Paediatrics
76	Dr. Md. Arif Mian	Mymensingh Medical College	Ophthalmology
77	Dr. Nazrul Islam	Dhaka Medical College	Ophthalmology
79	Dr. Md. Anwar Hossain	Sher-e-Bangla Med. College	Ophthalmology
80	Dr. Md. Shafiqul Islam	Mymensingh Medical College	Ophthalmology
84	Dr. Rezaul Islam	Dhaka Medical College	Psychiatry
85	Dr. S. M. Fazlur Rahman	Chittagong Medical College	Anaesthesiology
86	Dr Md. Ahsanul Habib	Chittagong Medical College	Anaesthesiology
87	Dr. Muhammed Mahbubur Rahman	Dhaka Medical College	Radiology
88	Dr. Parveen Shahida Akhtar	Sher-e-Bangla Med. College	Radiotherapy

78 candidates appeared in MCPS Examination in different subjects. List of candidates who satisfied the board of examiner is as follows :—

Roll No.	Name	Subject
24	Dr. Md. Nazmul Islam	Surgery
32	Dr. A. H. Md. Ghulam Anwar Khan	Obst. & Gynae
33	Dr. Nasima Akhtar	Obst. & Gynae
34	Dr. Md. Lutfur Rahman	Obst. & Gynae
37	Dr. Ayesha Nazneen	Obst. & Gynae
45	Dr. Md. Khalilur Rahman	Paediatrics
46	Dr. Md. Yousuf Ali	Paediatrics
55	Dr. A. B. M. Aminur Rahman	ENT Diseases
58	Dr. Md. Abdul Quadir	ENT Diseases
66	Dr. Abdul Quddus	Radiology
69	Dr. Dr. S. M. Mahmudul Hassan	Clinical Pathology
72	Dr. A. S. M. Ruhul Quddus	Clinical Pathology
73	Dr. Md. Azizar Rahman	Clinical Pathology
74	Dr. Nasir Uddin Mollah	Clinical Pathology
76	Dr. Khurshiduzzaman	Dental Surgery
78	Dr. Mizanur Rahman	Forensic Medicine

Lumpsum subscription of Tk. 5,000/- for life time

List of Fellows who cleared their subscription to the College at a time for life time is given below :—

1. Dr. Nurul Islam
2. Dr. Md. Nurul Islam
3. Dr. Md. Abdul Matin
4. Dr Mrs. Sultana Jahan
5. Dr. M. A. Majed
6. Dr. Golam Rasul
7. Dr. K. M. Nazrul Islam
8. Dr. Md. Abdul Bari
9. Dr. Md. Salek Talukder
10. Dr. Md. Sanowar Hossain
11. Dr. Sultana Razia Begum
12. Dr. Md. Abdul Mannan Miah
13. Dr. Md. Abdul Latif
14. Dr. Md. Abdul Mobin Khan
15. Dr. A.H.M. Towhidul Anwar Chowdhury
16. Dr. Md. Arshad Ali
17. Dr. A. H. M. Ahsanullah
18. Dr. Md. Sajid Hasan
19. Dr. Kishowar Azad
20. Dr. Md. Humayun Kabir
21. Dr. Sayeba Akhtar
22. Dr. Khokan Kanti Das

4th Convocation of the College

The 4th Convocation of the College was held on 21st August, 1989 at Hotel Sonargaon where Alhajj H. M. Ershad, President of the People's Republic of Bangladesh distributed diplomas to the Fellows and Members. The doctors who qualified in the FCPS and MCPS Examination of the College from July, 1987 to July, 1989 was the participants of the Convocation. Total 167 Fellows and Members received their diplomas in the Convocation.