JOURNAL OF BANGLADESH COLLEGE OF PHYSICIANS AND SURGEONS

VOL. 6 : NO- 2
FEBRUARY, 1989.

Published by :
Journal Committee
BANGLADESH COLLEGE OF PHYSICIANS AND SURGEONS.
Mohakhali, Dhaka-1212. Phone: 600454

Printed at :
ASIAN COLOUR PRINTING
130, D.I.T. Extention Road (Fokirerpool)
Dhaka-1000.
Phone: 40 76 56

Price :
Taka 30.00 (Inland)
US $ 7 (Overseas)

CONTENTS

RESULTS AND COMPLICATIONS OF RHEGMATOGENOUS RETINAL DETACHMENT

Ava Hossain

Key words :

Rhegmatogenous retinal detachment, Surgery, Complications.

Summary :

A total of 35 cases rhegmatogenous retinal detachment were subjected to surgical treatment in the National Institute of Ophthalmology, Dhaka. The age of the patients was between eight to 74 years.

In general, the postoperative visual acuity was good in this study. The better the preoperative visual acuity the higher was the success rate. There was also a positive correlation between the duration of the detachment and a poor visual result. Despite reattchment surgical efforts, retina remained detached in 14 cases and 57% of the failure were attributed to massive periretinal proliferation.

Introduction :

Retinal detachment is a rare cause of blindness and on a world scale it is perhaps the least common (Scott, 1978). Recent advancement in the treatment of rhegmatogenous retinal detachment has simplified the surgical technique by using local implants. The sealing of retinal defects is the most important s'ep in the surgical treatment of retinal detachment.

The present study was designed to find out the complications and results of retinal detachment surgery in rhegmatogenous retinal detachment.

Materials and Methods :

This study was carried out with the patient who have undergone surgery for retinal detachment in the National Institute of Ophthalmology, Dhaka. The patients came form different parts of Bangladesh and was admitted in the hospital. The follow up period varied from one year to four years from the time of surgery. A total of 35 cases were included in the study. Particular attention was paid on the state of the refractive error, the extent of the retinal detachment, depth of subretinal fluid under the retinal holes and the presence of vitreous traction at the site of the retinal hole, and the duration of detachment before seeking advice. Out of these 35 patients six (17.11%) had bilateral detachment. But the condition of the fellow eye was not suitable for consideration of any type of surgery because no perception of light was present and was not included in this study.

The age ranged between eight and 74 years. The male (88.5%) predominancy was marked.

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Visual acuity of both eyes were noted. A detailed examination of the cornea, depth and clarity of the A/C, lens and vitreous was carried out by slit lamp microscopy. The intraocular tension of all the patients were noted.

The duration of onset before seeking the advice is shown in Table I. This period varied from two days to two and a half years.

Table—I

Showing duration before seeking advice

Duration before seeking advice	Number of cases
0—1 Month	10
1—3 Months	6
3—6 Months	5
6—12 Months	10
More than one year	4

Fundus examinations were carried out repaetedly by direct ophthalmoscopy, Fison's binocular indirect ophthalmoscopy and Goldman three mirros contact lens test.

Table II shows the distribution of the tears at various quadrants of the retina. Number of retinal tears were more in upper temporal quadrant than in lower temporal, in upper nasal and lower nasal respectively. In nine eyes tears were in more than one quadrant.

All the patients were operated under general anaesthesia except five who had operation under local anaesthesia. After accurate localisation of the tears, holes and degenerative areas cryopexy was done in every patient. Silicon sponge plomb of

Table—II

Showing distribution of tears in retinal quadrant

Distribution of tears in retinal quadrant	Number of eyes
Upper temporal	13
Lower temporal	7
Upper nasal	3
Lower nasal	2
Mixed (more than one quadrant)	9
Disinsertion at the edge of coloboma	1

different sizes were sutured on the sclera either radially or circumferentially according to the type of retinal tears and holes. Encirclement procedures were also done in case of multiple tears and degenerative areas in addition to the local plombage. In three eyes intravitreal air injection was given through pars plana in addition to the procedures. Subretinal fluid was released in selective cases, where the retina was immobile and in extensive retinal detachment.

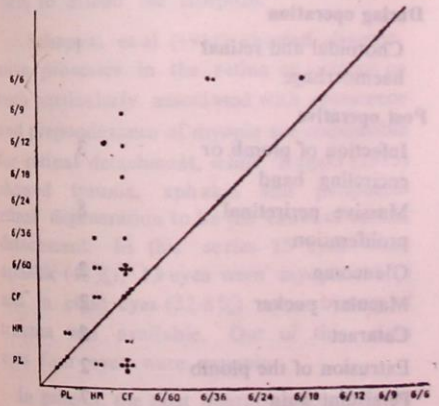
Results and Observation :

Of the eyes with rhegmatogenous retinal detachment, attachment was achieved in 25 eyes (71%) on first operation. Four of the succesful reattachment cases became detached after 1-5 months. Subsequently operation was done in one eye but failed to attain anatomic apposition. This anatomic failure was related to the development of massive periretinal proliferation Out of the remaining three eyes, one had massive periretinal proliferation and two eyes had new break formation. All of these three refused for a second operation.

In 10 eyes (28.6%) retina did not reattach on first operation. In five of these

eyes subsequent operation was done but retina did not reattach due to development of massive periretinal proliferation in three eyes, endophthalmitis in one eye, and in another eye the retinal tear could not be adequately sealed as the tear happened to be at the apex of the coloboma of the uvea very near to the optic disc. In other five of the 10 eyes operation was not undertaken. Out of these three eyes developed massive periretinal proliferation leading to a typical funnel shaped detachment and in two eyes severe infection occured.

Fig. 1. shows the visual acuity of 35 eyes postoperatively related to preoperative visual acuity.

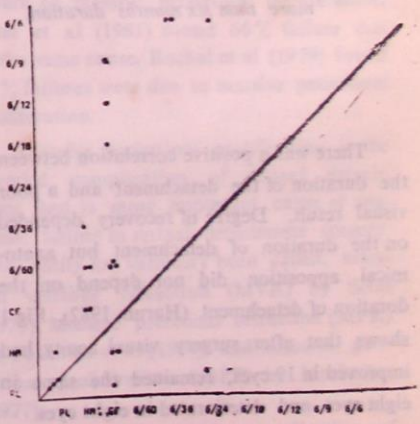


PRE-OPERATIVE VISUAL ACUITY

Fig. 1. *Scattergram showing the visual acuity of 35 eyes post-operatively related to pre-operative visual acuity. Acuities below the line were worse, those on the line remained the same and those above the line were improved.*

In general the preoperative visual acuity was count finger or less. In two eyes the preoperative visual acuity was 6/36, in one eye it was 6/24, in 19 eyes it was count finger, in seven eyes it was hand movement & in six eyes it was only perception of light. Although anatominal apposition was obtained in 21 eyes but visual improvement was obtained in 19 eyes. In two eyes reduced vision persisted after succesful reattachment of the retina. Reduced vision after successful reattachment of the retina may be due to morphologic abnormalities at macula (Cleary et al, 1978).

Fig 2 and Fig 3 shows the scattergram of visual outcome in detachment of less than six months and more than six months duration respectively.



PRE-OPERATIVE VISUAL ACUITY

Fig : 2. *Scattergram showing the visual acuity of 21 post-operatively related to pre-operative visual acuity with retinal detachment of less than six months duration.*

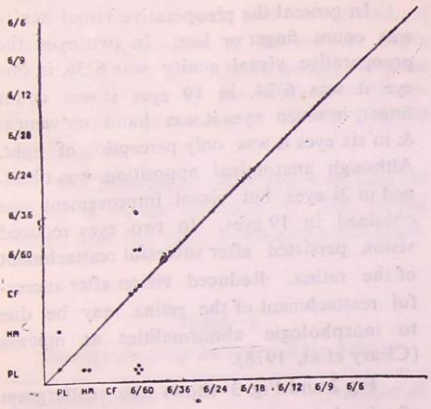


Fig : 3. *Scattergram showing the visual acuity of 14 eyes post-operatively related to pre-operative visual acuity with retinal detachment of more than six months duration.*

There was a positive correlation between the duration of the detachment and a poor visual result. Degree of recovery depended on the duration of detachment but anatomical apposition did not depend on the duration of detachment (Harun, 1982). Fig 1 shows that after surgery visual acuity had improved in 19 eyes, remained the same in eight eyes and deteriorated in eight eyes.

Table III shows the causes of failure in 14 eyes with retina that remained detached despite reattachment efforts. The operative and postoperative complications are enumarated in Table IV.

Table—III

Showing Causes of Failure

Causes of failure	Number of eyes	%
MPP or MPR or MVR	8	57.14
Infection	3	21.43
Failure to close tear	1	7.14
Formation of new retinal breaks	2	14.29

Table—IV

Showing complications occuring during and after operation

Complications	Number of eyes
During operation	
Choroidal and retinal haemorrhage	1
Post operative	
Infection of plomb or encircling band	3
Massive periretinal proliferation	8
Glaucoma	2
Macular pucker	2
Cataract	2
Extrusion of the plomb	2
Persistant pain	7
Granuloma at the site of the plomb	1

Discussion :

This study include 35 eyes of rhegmatogenous retinal detachment with hole

or tear in the different quadrant of the retina. However, no macular hole was present in any of these eyes. Macular holes are an uncommon cause of retinal detachment. Markham et al (1981) reported only two unusual cases of retinal detachment in which macular holes were visible.

The incidence of retinal detachment is more in older group of patients where senile and arteriosclerotic changes in the retina usually become evident (Amemiya et al, 1980). In our series the majority (62.85%) of the patients were above the age of 40 years.

Male predominance (88.57%) in the incidence of retinal detachment was also marked in this series Low incidence in female may be due to conservative attitude of the female of our society which prevent them to attend the Hospital.

Schepens et al (1961) showed degenerative processes in the retina or vitreous or both particularly associated with senescence and preponderance of myopia are responsible for retinal detachment, while Kanski (1975) showed trauma, aphakia and peripheral retinal degeneration to be the cause of retinal detachment. In this series 15 eyes were aphakic (42%), 13 eyes were myopic (37%) and in eight eyes (22.8%) some history of trauma was available. Out of this eight eyes four eyes were myopic.

In general, the post operative visual acuity was good in this study. Perhaps the most significant clinical factor in predicting success was the pre-operative visual acuity. The results of this series confirmed Burtons (1977) findings that the better the pre-operative visual acuity the higher the success rate. Conversely, a poorer pre-operative visual acuity was associated with a higher failure rate. In this series three eyes had post-operative visual acuity of 6/6 when the pre-operative visual acuities were 6/36 or better. Twelve of the remaining 32 eyes had post-operative visual acuities of 6/60 or better when the pre-operative visual acuities were limited to counting fingers or hand movements. The relation between the duration of the detachment and functional recovery was also confirmed in this series It showed that 12 of 21 eyes (57%) had a favourable functional result that is 6/60 or better when the detachment lasted less than six months. But a favourable result was observed in only three of 14 eyes (21.43%) when the detachment existed six months or longer.

Most of the failure in this series (57%) were attributed to massive periretinal proliferation. Harun (1982) attributes 60% of failure to massive periretinal proliferation, Peter et al (1981) found 66% failure due to the same cause. Rachal et al (1979) found 60% failures were due to massive periretinal proliferation.

Massive periretinal proliferation is the dreaded complication of retinal detachment and is most important cause of anatomic failure in retinal detachment surgery. This entity has variously been called, massive vetrious retraction (MVR) by Scott (1975), Massive preretinal retraction (MPR) by Tolentine et al (1977) and massive periretinal proliferation (MPP) by Machemer (1977).

Infection is another complication of local silastic sponge explant. Early infection may occur and be accompanied by intraocular signs (Hitchings et al, 1974). Early infection occured in three of 27 sponge explant operation in this series.

Extrusion of a silicon explant is a distressing complication which may precipitate failure of otherwise successful retinal detachment surgery (Richard et al, 1974). In their series they found 1.3% incidence of extrusion of silicon explant. Presnt series presented 5% incidence of extrusion.

Post-operative pain occured in seven eyes. All the eyes were treated with encirclement procedure. This pain was temporary and lasted a week or two, but in others pain persisted for two months.

In the past, retinal detachment failure resulted from inability to identify and subsequently fails to close all the retinal breaks responsible for the detachment (Okamura et al, 1964). Today, with improved methods of examination and surgical techniques, failures in retinal surgery result chiefly from preretinal and periretinal membrane formation.

Conclusion :

It is concluded that prognosis after rhegmatogenous retinal detachment surgery is better if proper surgical procedures are adopted to seal all tears and holes adequately. It is important that for good visual outcome the retinal detachments should be operated early and should be treated as an ophthalmic emergency.

The incidence of post-operative complications can be reduced by adopting appropriate surgical technique in each case, adequate sterilization and asepsis and use of peroperative and postoperative antibiotics. There are some causes of failure which are unavoidable such as massive periretinal retraction, but further work is needed in this field.

Acknowledgement :

This study was carried out under the close supervision and guidance of Prof. A Q S M Harun, FRCS, Professor of Ophthalmology. I am greatly indebted to him for the time and energy he and devoted to help me in guiding, supervising, collecting facts and suggesting means and ways to complete this study. I express my gratitude for his help.

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A STUDY OF THE EFFECTS OF 5-HYDROXYTRYPTAMINE ON TESTICULAR FUNCTION

S Ashrafuzzaman, S A R Choudhury

Key words :
5-hydroxytryptamine (5-HT).

Summary :

5-HT suppresses testicular functions. It reduces the weight of testes and inhibits spermatogenic process. It also reduces the weight of sex accessories. These characteristic effects of the drug are not only due to its peripheral effects but also due to the remote central actions.

Introduction :

5-hydroxytryptamine (5-HT)—a biogenic monoamine plays an important role on testicular functions. Boccabella et al (1962) observed that administration of the drug caused atrophy of seminiferous tubules, reduction in the weight of testis and sex accessories. They suggested that these effects were due to local vasoconsttricion. On the other hand, Shivivisan et al (1976) observed that administration of 5-hydroxytryptohan (5-HTP), a precussor substance that undergoes decarboxylation within the brain and raises endogenous level of 5-HT produced inhibition of spermatogenesis and shrinkage of seminiferous tubules. They reported that this characteristic effects were centrally mediated. Thus the inhibitory effect of 5-HT on spermatogenesis is well documented but regarding its site of action there are controversies which needs further study. The present work has, therefore, been undertaken to find out the effects of the drug on testicular function along with its site of action.

1. Syed Ashrafuzzaman, Associate Professor of Pharmacology, Dhaka Medical College.
2. S A R Choudhury, Professor of Pharmacology, IPGMR, Dhaka.

Materials and Methods :

Animals : Adult male rats of Long Evans strain weighing 120-150 g were used for this study.

Drug : 5-hydroxytryptamine creatimine sulphate (sigma chemicals, London).

Grouping of animals and their treatment: Animals were divided into three groups. Each group was again sub-divided into control which received normal saline containing 0.25% carboxymethyl cellulose and experimental group received 5-HT 20 mg/kg body weight daily subcutaneously for 15 days. 15 days period was chosen because of the fact that one complete cycle of seminiferous epithelium would be completed within this period (Abbatiello et al, 1975). On the 16th day, the animals were sacrificed. The testis, seminal vesicles and prostate were dissected out, cleaned and weighed. Testes were sectioned, fixed, stained and evaluated histologically. Prior to sacrifice blood sample was collected for testosterone assay.

Results and Observation :

Organ weight : Daily administration of 5-HT caused a significant reduction in the weight of testis, seminal vesicles and prostate when compared to the control (Table-I).

Testicular histology: The diameter of the seminiferous tubules were significantly reduced and the ratio of sperm containing tubules to non-sperm containing one was markedly reduced in the drug treated group as compared to the control (Table II).

The tubules were shrunken with loss of normal architecture in the drug treated group. Spermatogonial cells were scanty and Leydig cells were atrophied.

Testosterone : Serum testosterone level was significantly lower in the experimental group than of the control (Table III).

Table—I

Effects of 5-HT on weight of Testes, Seminals vesicles and Prostate of Rats
Values are Mean±S. E.

Expt. No.	No. of Animals	Treatment	Testes weight (mg/100g) B. W.	Seminal vesicles wt. (mg/100g) B. W.	Prostate weight (mg/100g) B. W.
1	6	A	1651.8±154.8	229.6±76.7	123.9±14.5
	7	B	525.2±80.1***	53.8± 3.7*	29.6±3.9***
2	6	A	829.6±66.3	182.9±13.0	95.6±4.9
	6	B	596.1±56.7*	45.5±3.6***	36.9±3.4***
3	6	A	1880.4±54.3	248.9±20.5	91.8±12.7
	6	B	811.8±21.8***	148.1±18.1**	39.2±1.4**

A=Daily S.C. injection of vehicle for 15 days.
B=Daily S. C. injection of 5-HT (20 mg/kg) B. W. for 15 days.
*=P <0.05
**=P <0.01
***=P <0.001

Table—II

Effects of 5-HT tessticular histology of rats. Values are means±S. E.

No. of testis examined.	Treatment	Tubular diameter (μ)	No. of tubules/low power field.	No. of sperm containing tubules/low power field.	No. of non-sprem containing tubules/low power field.	Spertogenic index (S. I.)
6	A	1559±5.7	26.7±1.4	16.2±1.1	10.5±3.3	1.54
10	B	91.8±4.4***	65.1±4.1***	4.0±1.2***	61.1±2.9***	0.06

A=Daily S. C. injection of vehicle for 15 days.

B=Daily S. C. injection of 5-HT (20 mg/kg. B. W.) for 15 days.

$$S.\ I. = \frac{\text{Sperm containing tubules.}}{\text{Non sperm containing tubules.}}$$

***= <0.001

Table—III

Effects of 5-HT on serum testosterone level of rats.

No. of Animals.	Treatmeant	Mean serum testosterone (mg/ml)±S. E.
6	A	2.70±0.67
6	B	0.66±0.27*

A=Daily S. C. injection of vehicle for 15 days.

B=Daily S. C. injection of 5-HT (20 mg/kg) B. W. for 15 days.

Discussion :

A complex mechanism exists within the testis for spermatogenesis and androgen production. Both FSH & LH are necessary for initiation and maintenance of spermatogenesis (Steinberger, 1971). FSH is primarily responsible for spermatogenesis & LH for testosterone synthesis from Leydig cells. Testosterone is also needed for spermatogenesis and sperm maturation.

In the present study the deleterious effect of 5-HT on testicular function indicates that the drug inhibits both FSH & LH secretion. The suppression of spermatogenesis indicates inhibition of FSH secretion and decreased serum testosterone level is

indicative of inhibition of LH secretion, Decreased testosterone level is also responsible for reduction in the weight of testis, seminal vesicles and prostate as the weight of these organs depends on serum testosterone level (Balin & Glasser, 1972). The mechanism by which 5-HT produces inhibitory effect is not clear. The drug may act centrally either on the hypothalamus where it inhibits release of releasing factors or it may act on the pituitary and interferes gonadotrophin release. The observed effect can also be explained through endogenous release of adrenaline. 5-HT enhances adrenaline release (Bowman & Rand, 1980) which has been found to inhibit both gonadotrophin secretion (Chatterjee & Paul, 1968), and testosterone production (Levin et al, 1967).

The drug may also act locally on the testis where it causes vasoconstriction resulting testicular ischemia and thus interferes utilization of gonadotrophin and synthesis of androgen. The results of this study are in close agreement with that of Boccabella et al (1962). They have also observed that the deleterious effect af 5-HT can be prevented by simultaneous administration of a vasodilator apresoline which strongly suggest that the effect of this drug is locally mediated. In this study prostaglandins may also be responsible for deleterious effect of 5-HT. It is known that 5-HT releases prostaglandins (Ellis et al, 1972) and Prostaglandins have been reported to inhibit spermatogenesis and decreased testosterone production (Ericsson, 1972; Memon, 1973; Abbatiello et al, 1975). From all these observations it can be concluded that 5-HT inhibits testicular function by interfering both central and peripheral mechanisms.

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CLINICAL PRESENTATION OF CARCINOMA OF THE HYPOPHARYNX

N Bhattacharjee

Key words :

Carcinoma of hypopharynx, Dysphagia, Hoarseness of voice.

Summary :

Sixty patients were studied with features related to Carcinoma of Hypopharynx. Fifty eight of them were smokers and 59 had chewing habits. Dysphagia being the commonest (92%) symptoms, other symptoms were hoarseness of voice (82%) and pain in the throat (65%). Change of voice and neck mass were evident in most of the cases. Foul breath, ulcerative and fungating growth, impaired laryngeal movement and fixation of hemilarynx was observed in many.

All cases were histopathologically proved as squamous cell carcinoma without distant metastasis of which 72% had grade II lesions.

It is proposed that patients presenting with dysphagia and/or neck mass should be looked into their hypopharynx apart from other clinical examinations.

Introductions :

Carcinoma of the hypopharynx by its presence and local extension, hamper two most vital functions of life viz., swallowing and breathing. In contrast to glottic carcinoma of larynx which drives the patients early to the doctors for hoarseness althrough spread late, the carcinoma of hypophoynx remain asymptomatic for a variable period of time and spread early. In most of the cases it is too late and sometimes patients come at such a stage that they could not be helped. Patients usually have difficulty in swallowing which later become associated with pain. This pain when becomes intractable and radiates to the ears, throw the patients into a lot of other problems. Firstly, they cannot swallow due to the pathology and pain just come on top of it. Secondly, while avoiding swallowing they deprive their body of nutrition, fluid and electrolytes. Thirdly, a stage comes when patient prefers frequent spitting to a bout of pain while swallowing. Fourthly, as obstruction increases and also pain, laryngeal spillover occurs ultimately leading to respiratory infection. Lastly, along with the preceeding ones, local extension to the larynx lead to the respiratory difficulty.

It is a problem to the treating doctors because, they present late, sometimes so late that they can be rendered no better help than just limited palliation.

Materials :

Altogether 60 patients (54 males & six females: ratio M:F—9:1) were included in

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this study in whom age range was 32-75 years (mean 54 years).

All patients but two females were used to cigarette, biri and hooka for a variable period ranging from 2-55 years.

All the patients except two males used to take tea, one coffee and five alcohol duration of which varied from 1-25 years.

All but one male patient used to chew betel leaf with other ingredients, like betel nut, lime, catechu, raw tobacco and zarda in different combinations.

All smokers but one male patient used to chew betel leaf with other ingredients. Five alcoholics were smokers and chewers too.

50 patients (45 male and 5 female) had poor oral hygiene, had tartar on the teeth with infected gums and foul breath.

All the patients were habituated with highly spicy food.

All these patients were collected from the E N T O P D and E N T Wards, of PG Hospital and Dhaka Medical College Hospital from March through August, 1984. They belonged to different socio-economic conditions.

Methods :

The diagnosis of carcinoma of hypopharynx was generally established by some combination of history, physical examination, haematological examination, roentgenogram, endoscopy and histopathological examination.

The classification of the carcinoma of hypopharynx followed here was confirmed by UICC and AJC in 1978 which included lesions of pyriform fossa, postcricoid area and posterior pharyngeal wall.

Results :

Clinical Presentation :

58 patients (52 M+6 F) presented to the doctor with the features of the disease in different combinations. But surprisingly two male patients presented to the doctor for other conditions. One for hypertension and the other for stucking fishbone in the throat. The tumours were incidental finding; (Table I & II).

Haemoglobin profile :

Two female patients having 35% and 38% haemoglobin level had all the signs of iron deficiency anaemia but serum iron binding capacity was not estimated.

Rest were having their Hb level between 50-70% or above.

Nodal involvement :

Nodal involvement was studied and categorised as per UICC classification. 26.66% patients had no involvement of the regional cervical lymph nodes. Out of the rest 68.33% were uni-and homolatereral and 5% had bilateral involvement of lymphnodes. All these patients had their primary growth in the pyriform fossa. Four patients with carcinoma of postcricoid region and posterior pharyngeal wall had no lymph node involvement. Microscopic involvement of the clinically normal node was not studied.

Subsite classification (Table III) shows that 93.33% had pyriform fossa lesion and 3.33% each in postcricoid and posterior pharygeal wall. Lymdh node involvement can be grouped according to subsite classification (Table IV).

Tumour Extension :

Study of tumour extension (Table V) shows that 5% lesions remained localised to the primary site (T_1). In 12% tumour extended to the other sites but within the hypo-

Tadle—1

Showing mode of presentation of carcinoma Hypopharynx (N-100)

presenting Symptoms	Duration of the symptom in months		No. of patients	%
	Range	Average		
Dysphagia	0.5-8	2.5	55	91.66%
Hoarseness of voice	0.5-4	2	49	81.66%
Pain in the throat	0.5-8	3.5	39	65%
Radiating to the homolateral ear			27	45%
Mass in the neck	2-8	5	33	55%
Foreign body sensation in the throat	0.5-6	4	14	23.33%
Difficulty in respiration	0.5-3	1 1/2	6	13%
Deterioration of general condition	4-8	6	6	10%
Cough	1-6	3	5	8.33%
Stickiness in the throat	1-8	3.5	4	6.66%
Discomfort and irritation in the throat	1-12	5	3	5%
Spitting of blood	4-6	5	2	3.33%
Excessive salivation		15	1	1.66%
Food stuck in the throat		15	1	1.66%
Discharging sinus		2	1	1.66%

Table—II

Physical findings of the patients diagnosed to have carcinoma Hypopharynx (N-100)

Findings	No. of Patients	%
Foul breath	50	83.33%
Type of the growth		
(a) ulcerative	39	65%
(b) Exophytic	21	35%
Laryngeal movement		
(a) Fixation of the hemilarynx	23	38.33%
(b) Impaired movement	26	43.30%
(c) Normal movement	11	18.33%
Change of voice	49	81.66%
Englarged cervical lymph node	44	73.33%
Pooling of saliva in the pyriform fossa	15	25%
Inspiratory stridor	6	10%
Loss of crepitus of the thyroid cartilage over the cervical vertebra.	3	5%
Koilonychia, glossitis stomatitis, pallor.	2	3.33%
Discharging Sinus in the neck	1	1.66%
Health condition :		
Very good health	2	3.33%
Average health	30	50%
Poor health	24	40%
Severely debiltated emaciated, dehydrated	4	6.66%

Table—III

Subsite classification of the cases (N-100)

Subsite	No. of Patients	%
Pyriform fossa	56	93.33%
Right	33	55%
Left	23	38.33%
Posterior Pharyngeal wall	2	3.33%
Postcricoid region	2	3 33%

Table—IV

Relationship between subsite classification and Lymph node involvement

Subsite	Total No. of patients	No. of patients with lymph node in volvement	%
Pyriform fossa	56	44	78.57%
Postcricoid region	2	—	—
Posterior Pharyngeal wall	2	—	—

pharynx (T_2). In 83% the tumour extended beyond the hypopharynx, such as to larynx, oropharynx and soft tissue in the neck (T_3).

In no case distant metastasis was found. So all belonged to the group M (100%).

Histological type :

All were squamous cell carcinoma (100%). Grading shows 13% had Grade I lesions, 72% grade II lesions and 15% grade III lesion. None had grade IV lesion. Neurological examination did not show any abnormality.

Table—V

Showing Nature of Tumour extension

Tumour group	No. of Patients	%
T_1	3	5%
T_2	7	11.66%
T_3	50	83.33%

Discussion :

This study was conducted on a small series of patients with a hope that it would give an idea on clinical presentation of the disease.

Predominence of the disease was observed around 6th decade of life which was followed by 5th decade, with sex ratio of 9:1 (M:F). Ackerman and del Regato (1970) also found a predominence in men between 40 and 60 years of age. It is presumed that personal habits may have some bearing on the causation of the disease. As good as 58 smokers, 59 chewers of different ingredients and five alcoholics (many of them had mixed habits) fell victim. It is quite possible that all the above factors may produce either physical or chemical irritation to the mucosa. Vincent & Marchetta (1963) also suggested that these factors may have some inductive roles in the production of carcinoma of oral cavity and pharynx.

90% of the patients used to have poor to average diet with highly spicy food preparations which again might have some role to play.

As regards symptoms, dysphagia (92%), hoarseness of voice (82%), pain in the throat (65%), neck mass (55%) and foreign body sensation in the throat (23%) stood in a descending order. Analysis of findings showed that 83% had foul breath which could be due to poor oral hygiene or the pathology itself. But both the factors may have roles to play with secondary infection (Ackerman and del Regate, 1970). 65% had ulcerative growths and 35% had exophytic growths.

27% were clinically free from lymph node involvement. Out of 73 affected with lymph node involement 68% had unilateral but homolateral and five bilateral involvement. All these 73% had their lesions in the pyriform fossa. Dalley (1968) showed that 66% had lymph node involvement with the primary in the pyriform fossa. Posterolateral wall and postcricoid region with 55% and 42% followed the suit. On the contrary Stell and Maran (1979) showed that 65% of pyriform fossa lesions mostly had unilateral lymph node involvement (60%) and bilateral involvement was in only 5%. Postcricoid (20%) and posterior pharyngeal wall (55%) followed it. So it apears that pyriform fossa lesions in present study stay closer to the finding of the above workers but other figures stay far off.

Bryce (1967) showed pyriform fossa lesions in 61% in a group of 230 patients and MacComb and Fletcher (1967) showed 75% of 245 patients as against 93% in this series. Here posterior pharyngeal wall and postcricoid regions had 3% incidence in each case whereas MacComb Fletcher puts the figure for postcricoid lesion at 2% as against 24% by Bryce.

Here 84% presented with T_3 lesions which is a significantly late presentation, with T_2 (12%) and T_1(5%) to follow the suit. Though they presented late, in no case distant metastsis was found.

Histopathological examination showed 100% squamous cell carcinoma with 72% Grade II lesions. Grade III (15%) and Grade 1 (13%) followed it. None had Grade IV lesion. On the other hand Spiro et al (1983) gave histologic diagnosis of 93% cases of carcinoma of hypopharynx as squamous cell carcinoma. Rest were found to be adenocarinoma and mucoepidermoid carcinoma (3.5% each).

Haemoglobin profile of these patients showed that two patients with postcricoid lesion who were female had haemoglobin level 35% only. Two patients had this level above 70%. Altogether 97% had haemoglobin level below 70% (70% is a reasonably satisfactory level in our perspective).

Acknowledgement :

I express my deep sense of gratitude to Prof. Ali Afzal Khan, Prof. M N Amin, Prof. M A Majed & Prof. M Alauddin for their thoughtful guidance and help in this study. I am also grateful to the Director of Dhaka Medical College Hospital & Superintendent of P G Hospital for kindly allowing me to go on with this study in the wards and O P Ds of both the hospitals.

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MANAGEMENT OF INSULIN DEPENDENT DIABETIC PATIENTS DURING ANAESTHESIA—AN ASSESSMENT OF THREE DIFFERENT TREATMENTS

U H S Khatun, K M Iqbal, Afzalunnessa

Key Words :

Diabetes surgery, Glucose insulin potassium infusion, Mataboiism.

Summary :

Thirty diabetic patients underwent major elective surgery. An intravenous infusion drip of 5% dextrose (1 lit) was started thirty minutes before induction in each patient. Regardless of their preoperative control, patients were divided into three groups. Group A had ten patients who received insulin according to sliding scale, Group B having ten patients received glucose and insulin (G I) infusion and ten patients in Group C were managed with Glucose-insulsn-potassium (GIK) infusion. All patients received 5% dextrose during surgery as well as in the postoperative period. Preoperative control was achieved by sliding scale soluble insulin for all patients. Significant rise from the preoperative value was found within each group during surgery and also pastoperatively. Highly significant difference was also found between Group A and Group B and also between Group A and Group C as far as the control of the hyperglycaemic responses were concerned. It was noticed that glucose-insulin-patassium group had a relatively smoother per and pastoperative dibetic control, although the serum potassium level of the groups B and C did not show any difference. It was concluded that both G I and G I K infusion treatments during anaesthesia and surgery for diabetic patients are effective and there was no significant difference between these two.

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Introduction :

The anaesthetic management of diabetes mellitus is a fairly common problem and the disease itself demands serious preoperative considerations. Blood glucose level increases during surgery both in diabetic and non-diabetic patients. The wound healing process may be interfered with the presence of diabetes (Weringer & Aquilla, 1981) while the tissue appears to offer more favourable site for the developmet of infection (Bagdade et al, 1972). The use of insulin has, however, revolutionized the whole management in major surgeries, where incidence of mortality has been brought down.

At present there are multiple recommended regimens, many of which are rather difficult to follow and tend to be cumbersome. The control of insulin dependent diabetes (IDD) during surgery has been based on regimens used traditionally. These often require a fraction of the total daily insulin dose administered intramuscularly with intravenous glucose supplementation or administering insulin subcutaneously according to sliding scale (Toking, 1977). Attempts to simplify this, has also been made by witholding both insulin and glucose (Fletcher et al, 1965). A more logical approach is to provide a continuous infusion of a glucose infusion mixture in insulin dependent diabetics. Although various recommendations are available regarding the infusion two particular regimens have been chosen in this study. One containing a mixture of glucose and insulin (GI) (Becchus 1977), the other was a glucose-insulin potassium (GIK) solution (Thomas et al, 1984). All these regimens seem to control plasma glucose satisfactorily. Alberti & Thomas in 1979 favoured the use of GIK solution in their review as a continuous infusion as an additional guard against hypokalaemia. In our country Kcl solution is not widely available and regular monitoring of the electrolytes also become difficult. In this study we selected three commonly practised methods to assess the efficiency and practicability of each regimes as well as to see whether hypokalaemia in GI solution group is at all a feature.

Methods :

Thirty randomly selected adult insulin dependent diabetic (IDD) patients were studied after admission for elective major surgery (Table I). All patients irrespective of their normal control were switched over to soluble insulin as per sliding seale (Table II). Surgeries were performed early in the morning and no patient was given any breakfast or insulin and the patients were starved from previous midnight. Informed consent was obtained from each patient after the objective of the study had been fully explained.

Table—I

Showing parsonal profile of the population Studied

Group	Age in year Mean±SEM	Body Wt. in kg, Mean±SEM	Sex M:F
A	43.8±0.75	55.0±0.5	1:9
B	46.8±1.3	60.0±0.6	4:6
C	50.0±1.12	53.0±0.5	3:7

Table—II

Showing scheme of sliding scale for diabetic control.

Colour	Urine		Blood
	Acetone (+)	Acetone (—)	
	% +	Insulin in units	mmol/l
Red	2 + + +	32	20 13.9 or more
Yellow	I + +	20	12 11.1-13.8
Green	1/2 +	12	8 8.8-11.0
Blue	— —	8	— Less than 8.8

Note : If patients daily insulin requirement is
i) more than 96 units scale should be doubled
ii) less than 32 units scale should be halved

All patient were induced and maintained with a standard anaesthetic technique. As far as the control of blood glucose during surgery and in the postoperative period were concerned, the patients were divided into three groups. Group A comprising of ten patients received 5% dextrose infusion and was given soluble insulin subcutaneously in the postoperative period according to sliding scale. Group B had ten patients who received 10 units of soluble insulin in one litre of 5% dextrose infusion and lastly in Group C ten patients received 10 units of soluble insulin with 10 mmol of Kcl in every litre of 5% dextrose. Infusion rate in the latter two group was approximately 100 ml/hr, providing two units of soluble insulin per hour. All patients were, however, catheterized after induction. Samples of venous blood from the non infusing arm for glucose and postassium with corresponding samples of urine for glucose were taken for estimation before operation (designated as time F) at approximate mid time of operation (designated as 'O') and the eight hourly after surgery upto twenty four hours (designated as '8', '16' and '24' respectively). Each patient was watched for signs and symptoms of hyper--or hypoglycaemia. Paired comparisons were made between the results of different estimation points within each group taking preoperative values as control. Comparions were also made between the groups on different reading points and datas were analysed aecordingly. Students 't' and ANOVA were used as applicable for statstical anlysis.

Results :

In Group A, the mean plasma glucose level rose during surgery from 8.87 mmol/l to 17·9 mmol/l. The leval rose mainly at '8' hour point ($P < 0.02$) and at '16' hour point ($P < 0.01$) post operatively and came down to the lowest level 9·31 mmol/l after 24 hours. There was no significant change in potassium level (Table V & VI). In Group

Table—III

Showing Duration of anaesthesia during Operation

Group	Mean	SEM
A	87	+5.4
B	84.5	±3.7
C	79.1	±2.0

Table—IV

Showing Mean blood glucose level of Group A (n=10)

Reading point	mmol/l	SEM
F	8.87	±0.3
0	13.63	±0.7
8	17.57**	±0.9
16	17.9**	±0.8
24	9.31	±0.5

**$P < 0.01$

Table—V

Showing Mean serum potassium level of group A (n=10)

Reading point	mmol/l	SEM
F	3.75	±0.03
0	4.26	±0.03
8	3.64	±0.04
16	3.82	±0.035
24	4.13	±0.03

B (Table VII & VIII), the mean plasma glucosc level rose from preoperative level of 6.5 mmol/1 to 10.34 mmol/1 at '16' hr. reading point indicating a highly significant change, and also 9·0 mmol/1 at '8' hr. reading point which was significant. The level came down almost to normal value of 7.43 mmol/1 postoperativly at '24' hr. reading point. There was no significant change in potassium level between pre-and postoperative values. In Group C (Table IX & X) the mean plasma glucose level started to rise very slowly than other two groups. The level reached a peak of 9·23 mmol/l at '8' hr. reading point which was a significant rise ($P < 0.05$). The level came down to preoperative level after '24' hours (6·89 mmol/l). There was no significant differencc of per- and postoperative serum potassium level from its preoperative values.

Table—VI

Showing Mean plasma glucose level of Group B (n=10)

Reading point	mmol/l	SEM
F	6.5	±0.2
0	8.2	±0.3
8	9.0*	±0.3
16	10.34***	±0.3
24	7.43	±S.1

*P <0.05
**P <0.01

Table—VII

Showing Mean serum potassium level of group B (n=10)

Reading point	mmol/1	SEM
F	3.8	±0.04
0	4.1	±0.05
8	3.6	±0.04
16	3.7	±0.03
24	3.8	±0.04

Table—VIII

Showing Mean blood glucose level of Group C (n=10)

Reading point	mmol/1	SEM
F	7.2	±2.0
0	7.53	±2.96
8	9.23*	±2.20
16	8.94	±2.99
24	8.69	±2.01

*P <0.05

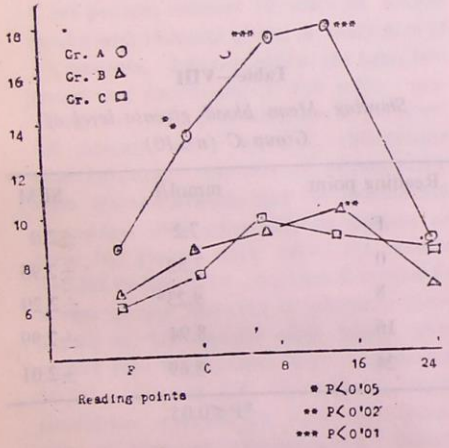
Table—IX

Showing Mean serum potassium level of group C (n=10)

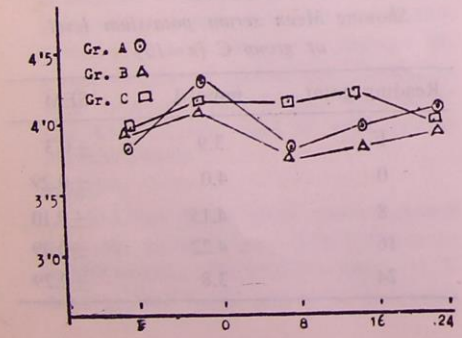
Reading point	mmol/l	SEM
F	3.9	±0.3
0	4.0	±0.29
8	4.15	±0.10
16	4.22	±0.39
24	3.8	±2.29

As far as the comparisons between the three groups were concerned (ANOVA), Group A showed highly significant in plasma glucose ($P < 0.01$) at '8' hr. and '16' hr. reading points (Fig 1). Significant difference was also found in Group B at '16' hr. reading point. There was, however, no sifinigcant difference between the groups regarding the serum potassium level.

Fig—1.



Fig—2.



Discussion :

The metabolic changes occurring after elective surgery are influenced by stress of operation, starvation and action of anaesthetic agents (Allison et al, 1969). This catabolic response during surgery can be dealt with insulin and adequate calories to non-diabetics (Blackburn et al, 1973). But the insulin-dependent-diabetics (IDD)may soon develop metabolic derangement in the post-operative period. Abnormalities of metabolism and hypoinsulinaemia may increase susceptibility to infection and may possibly result in poor wound healing (Bagdade et al. 1972) as have already been mentioned.

A safe, effective and simple regimen for the management of IDD patients is very much needed. Continuous intravenous infusion of insulin in the peroperative management has been advocated by many. In the present study we have used tow regimens of infusion along with a conventional 'Sliding Scale Method'. The last one mentioned, however, has failed to prove itself as an effective means of management. The GI and GIK infusions, on the other hand, seemed to be quite satifactory.

Insulin is administered either as a concentrated solution by means of an infusion pump (Barnet et al, 1910) or mixed with glucose solution in a conventional giving set (Bacchus, 1977). The first method has its own risk of overdosing if not done carefully and the second one has the disadvantage of adsorption of insulin in the plastic container (Peterson et al, 1976). But the works of Alberti and Thomas in 1979 has found acceptable recovery of insulin from the plastic container while using a GIK solution. In this study the effective-

ness of GIK as well as GI infusion to manage IDD patients has been reinforced and proved that the adsorption was not a problem, but the study failed to show the necessity of adding Kcl in the Glucose-Insulin solution where there was no significant change of serum prostassium in first twenty four hours. Although the smoother control achieved by GIK infusion in the postoperative period than the GI infusion the difference was not statistically significant.

It was concluded that GI infusion may be used to manage insulin-dependent-diabetic patients during surgery and postopesatively in place of GIK infusion since hypokalaemia has not been one of its feature during this period.

Acknowledgements :

The authors wish to thank Dr. Jafar A Latif FCPS, Consultant of BIRDEM, the patients and the doctors of Anaesthesiology Department of IPGMR for helping in the preparation of this paper.

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MULTIPLE MYELOMA–CLINICAL PRESENTATION & DIAGNOSIS

M A Latif, A Das

Key words :
Multiple Myeloma, Diagnosis.

Summary :

This study was undertaken to find out the clinical presentations, laboratory diagnoses and complicaiions in patients with multiple myeloma. Eleven cases of multiple myeloma were diagnosed in a medical unit of Sylhet Medical College Hospital over a period of three years. There were six males and five females. The mean age of the patients was 62 years. The common clinical features at presentation were wandering rheumatic like pain of variable severity in the lumbar and sacral regions and in the throax, progressive weakness, recurrent fever and symptoms of infection. Laboratory investigations revealed a very high ESR, moderate to severe anaemia, myeloma cells in bone marrow aspirates and typical skeletal X-ray changes in all the eleven patients. Three patients had Bence-Jones proteinuria. Four patients had mild chronic renal failure.

Introduction:

Multiple myeloma is neither a common nor a very infrequent disease. In USA its annual incidence is about three new patients per 100,000 population and is almost as common as Hodgkin's disease (Smith & James, 1985).

The fundamental abnormality in multiple myeloma is the neoplastic proliferation of plasma cells (myeloma cells). The pathoclinical features are due to tissue infiltration and production of large amounts of monoclonal mmunoglobulin (paraprotein) by the myeloma cells (Penington et al, 1978). In addition, myeloma cells secrete factors which activate osteoclasts to destroy bone, suppress antibody formation and depress marrow function (Peter Selby, 1987). The myeloma cells infiltrate bone and other tissues. In about 5% cases plasma cells appear in the blood (Plasma cell leukaemia) (Peter Selby, 1987). In 3-5% cases myeloma may present as localised tissue deposit (Plasmacytoma) (Betaille, 1982). The paraprotein secreted by the myeloma cells may be a whole Ig molecule (usually, IgG 53%, Ig A 25%, & Ig D 1%) or in 20% cases light chains only (Bence-Jones Myeloma) (Peter Selby, 1987). Bence-Jone's proteinuria (BJP) is found in about 40% of myeloma patients (Kruph & Chaton, 1986). On electrophoresis myeloma protein appears as a sharply defined M-band. Fewer than 1% cases have no definable M-comp in the serum or urine. Such patients have L

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chain myeloma but this is masked by the ability of the kidneys to completely catabolise the presented L chains. Immunoflourescence study of the marrow myeloma cells with anti-L chain antisera generally identify such patients (Smith & James, 1985)

Materials and Methods :

Eleven cases of multiple myeloma were diagnosed over a period of three years from Jan. '83 to Feb. '86 in Sylhet Medical College Hospital in Medical Unit IV which deals with all types of medical problems. Details of history and physical examination were noted in each case. All the patients had blood examination for ESR, Hb, TWBC, differential count and blood film morphology. BT, CT and platelet counts were done in patients with bleeding problem. Blood urea was done in cases where renal involvement was suspected. Routine and microscopic examinations of urine of all patients were done. Bence-Jones proteinuria was tested in all cases by heat test method. Radiographs of skull, ribs, dorsolumbar spines and pelvis of all patients were taken. Chest X-rays and X-rays of KUB were also done. Bone marrow aspirates from all patients were examined for the presence of myeloma cells. Protein electrophoresis of serum or urine could not be done due to lack of facilities.

Diagnostic criteria for multiple myeloma was based on the presence of at least two of the following characteristic features: myeloma cells in bone marrow, osteolytic bone lesions and paraprotein in serum or urine.

Results :

There were six males and five females. The mean age of the patients was 62 years. The disease had an insidious onset in all patiets. The common clinical features are shown in table I. All the patients had pain in the lumbar and sacral regions and in the thorax. The pain was described as wandering rheumatic like. Two patients had moderate pain, seven had severe pain and two had extremely severe pain. Inspite of large doses of NSAID the pain rather worsened in all cases. Weakness and tiredness was a major complaint of all patients. Fever and symptoms of infection were present in seven cases. Five of them had respiratory tract infection and three had urinary tract infections. Six patients complained of malaena and two of them had epistaxis too. Cerebral symptoms like headache and dizziness were present in four patients.

Table—I

Clinical features in multiple myeloma

	No. of Pts.	%
o Bone pain	11	100
o Weakness	11	100
o Fever & infection	7	64
o Malaena	6	55
o Cerebral symptoms	4	35
o Epistaxis	2	18

Laboratory investigations are detailed in Table II. All the patients had a very high ESR and it was 125 mm in 1st hour on and average. Hb level was below 9 g/dl in seven patients and below 6 g/dl in four patients. The anaemia was normocytic and slightly hypochromic. Rouleaux formation was seen

Table—II

Investigative findings in multiple myeloma (n=11)

	No. of Pts.	%
o ESR 125 mm on average	11	100
o Hb <9 gm	7	64
<6 gm	4	36
o Blood Urea 70-80 mg	4	36
o Urine Albuminuria	7	64
o Pus cells & Casts	4	36
o Bence-Jones proteinuria	3	27
o Myeloma cells in marrow	11	100
o X-ray changes:		
Skull	11	100
Ribs	7	64
Pelvis	2	18
Dorso-lumbar spines	8	73

in one patient. Blood urea was done in seven patients and four of them had high blood urea (70-80 mg/dl). Urine examination revealed mild to moderate albuminuria in seven patients and four of them had pus cells and casts. Bence-Jones proteinuria was detected in three cases. Skeletal X-Ray showed multiple punched out osteolytic lesions in skull (11 cases), in ribs (seven cases), in pelvis (two cases) and diffuse osteoporotic changes in dorsolumbar spines (eight cases). Chest X-Rays of patients with respiratory infection showed evidence of pneumonitis. Bone marrow aspirates revealed typical malignant plasma cells in all the cases.

Discussion :

Multiple myeloma is uncommon but not rare and is being recognised with increasing frequency. Multiple myeloma is reported in Bangladesh (Huda & Ali, 1981, Ahmed et al, 1984 & Chowdhury et al, 1987). The present study includes eleven cases diagnosed in one of the four medical units of Sylhet Medical College Hospital. Laboratory investigations were, however, limited because of lack of facilities.

Multiple myeloma is a disease of middle and old age and the mean age is reported to be 66 years (Huda and Ali, 1981). Males and females are equally effected (Penington, et al 1978, Huda and Ali, 1981). In this series the mean age is 62 years. Male and female ratio is nearly equal (6:5). The clinical presentation of bone pain is the outstanding symptom in all reports (Penington et al, 1978, Huda and Ali, 1981). The pain is due to bone infiltration and erosion by myeloma. Bone pain was present in 100% of our patients and was most frequent in the lumbar and sacral regions and in the thorax. The pain was resistant to NSAID and was a significant feature in all the cases. Weakness was an especially prominent symptom in all patients. Recurrent fever and infection in multiple myeloma are frequent (Penington et al, 1978, Peter Selby, 1987, Huda & Ali, 1981). Excess paraprotein and impaired normal antibody response render these patients susceptible to infection. We had evidences of infection in 64% of patients. Abnormal bleeding like purpura, epistaxis and malaena is reported (Penington et al, 1978 Huda & Ali, 1981) and is due to both paraproteinaemia and thrombocytopenia In the present series no haemostatic defect

was detected. Malaena was perhaps due to large doses of NSAID and epistaxis was due to inflammatory changes. Cerebral symptoms are present in about 25% cases. We had 35% of patients who had cerebral symptoms.

A very high ESR is invariable in myeloma (Penington et al, 1978, Huda & Ali 1981). All of our patients had high ESR exceeding 125 mm in 1st hour on an average. Anaemia of variable degree is present in myeloma (Penington et al, 1978) and is due mainly to depressed haemopoesis. In this series 64% cases had moderate anaemia and 36% had severe anaemia. Rouleaux formation is due to paraproteinaemia and this may interefere with blood count and grouping. Renal failure may develop in 20% cases of myeloma (Smith & James, 1985) and is reported in 25% cases in one series (Huda & Ali, 1981). Renal failure is frequently of mixed pathogenesis and is due to BJP, hypercalcaemia, pyelitis and amyloidosis. We had four patients (36%) who had evidences of mild chronic renal failure. Bence-Jones proteinuria is practically pathognomonic of myeloma (Penington et al, 1978) and is reported in 25% cases in one series (Huda & Ali, 1981). In this series 27% cases had Bence-Jones proteinuria. Radiological bone changes are invariably found in myeloma (Sumith & James, 1985, Huda & Ali, 1981 and Ahmed et al, 1984).

In the present study osteolytic lesions were seen in skull (100%), ribs (64%), pelvis (18%) and diffuse osteoporosis in dorso-lumbar spines (73%). Bone marrow study always reveals myeloma cells (Huda & Ali, 1981, Ahmed et al, 1984 and Chowdhury et al, 1987) but a careful search is necessary because myeloma may involve marrow in an uneven way. All of our patients had myeloma cells in their bone marrow aspirates.

The diagnosis of multiple myeloma is not difficult once the disease is clinically suspected. Simple investigations like skeletal X-Rays, bone marrow study and heat-test for Bence-Jones protein in urine will confirm the diagnosis. Further investigations are needed to characterise the paraprotein and to assess the extent of the disease and its complications.

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VESICO-VAGINAL FISTULA : SURGICAL MANAGEMENT OF 100 CASES

A Begum

Key Words :

Vesico-Vaginal fistula, Surgery

Summary :

Genital fistula of obstetrical origin is a major problem in our country. It is a problem not only to the patients and her social inmates but also to the gynaecological surgeons. Surgical treatment and results of hundred cases of genital fistula of obstetrical origin over a period of two years is analysed in this study. Overall success rate was 85%.

Introduction :

No one can deny the words of great author Chassar Moir, "The treatment of vesico-vaginal fistula has a fascination of its own. No branch of surgery calls for a greater resource, never is patience so surely tried, and never is success more dependent on the exercise of constant care both during operation and, even more perhaps during the anxious days of the convalescence. But never is reward greater. Nothing can equal the gratitude of women who weared from constant pain, depressed by an ever growing sense of humiliating nature of her infirmity and desperate with realisation that her very presence is an offence to others, find suddenly that she is restored to full health and able to resume a right-ful place in the family—who finds, as it were that life has been given a new and that she has again a citizen of the world".

Genital fistula is a lesion causing a great social, domestic and marital inconvenience to a large number of women in our society. Vesico-vaginal fistula was previously an almost incurable condition. Many surgeons have made courageous attempts at its repair, but it was the outstanding work of Marion Sim who introduced the edge paring technique with good result. Much progress has been made since then and in this series different techniques used in the repair of vesico-vaginal fistula and their results are analysed.

Materials and Methods :

Hundred patients of vesico-vaginal fistula admitted in Dhaka Medical College Hospital and Mymensingh Medical College Hospital during the period of January 1987 to December 1988 undergoing surgical treatment were taken for the study. All fistulae were of obstetric origin. No fistula following gynaecological surgery was seen during this period and malignant fistulae were excluded.

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Results :

Majority of the patients were young, prime para, illterate of and poor socio-economic condition and unbooked cases. (Table I

Table—I

(a) *Age wise distribution of the patients (n=100)*

Parameter	No. of patients	%
AGE IN YEARS		
15	3	3%
16-20	45	45%
21-25	32	32%
26-30	16	16%
31-and above	4	4%
(b) *Parity of the patients*		
Prime para	73	73%
2-4	16	16%
Grandmultipara	11	11%
(c) *Educational status of the patients School yrs completed*		
0	73	73%
1-5	17	17%
6-10	8	8%
11	2	2%
(d) *Prifile of Antenatal check up of the patients*		
1. No antenatal check up	98	98%
2. Irregular check up	2	2%
3. Regular antenatal check up	0	0%
(e) *Socio Economic condition of the patients*		
Taka/month		
≤1000/-	86	86%
1001-2500	11	11%
≥2500	3	3%

u, b, c, d, e). Mode of presentation of fistula cases are shown in table II.

Table—II

Presentation wise distribution of patients (n=100)

Presentation of patients	No.	%
Vesico Vaginal fistula	80	80%
V.V.F with vaginal stenosis	8	8%
V.V.F. with R.V.F.	6	6%
V.V.F. with perineal tear	6	6%

Table—III

Showing types of operation done in the patients

Parameter	No.	%
Local repair	98	98%
Colpocleises	2	2%

All fistulae were attempted to repair per vaginally. Sixteen patients needed additional suprapubic approach. Of sixteen cases ten required abdominal hysterectomy as in these cases fistulae extended upto the cervix. Rest six needed transvesical approach where the ends of the fistulae were high up and inaccessible (Table IV).

The vaginal operations were performed with the patients in lithotomy position. This made repair of low fistulae adherent

to the back of the pubis rather difficult. Though Lawson (1968) have advocated knee-chest position for them it could not be attempeted due to the lack of experience on the part of the theatre staff.

Table—IV

Showing different approach to local repatr.

Parameter	No.	%
Vaginal	82	83.67%
Suprapubic+Vaginal		
a) Trans abdominal	10	10.20%
b) Transvesical	6	6.13%
Total	98	100%

A flap splitting two or three-layer repair technique was used, chromic catgut 2/0 was used for bladder repair mostly, in a few cases dexon 2/0 were used. Chromic catgut 1/0 was used for vaginal wall. In six cases Martius pedicle graft of fat from labium majus were done along with flap splitting method (Table-V).

Colpocleises was done in two cases. In both these cases there were big vesico-vaginal fistula with big rectovaginal fistulae and much scarring. Out of two colpocleises cases one got cured and the other failed. (Table-III & VI).

Eighty out of ninty eight cases of local repair were successfully closed in first attempt. (Table III & VI).

Table—V

Showing different flap splitting technique done on the patietns

Flap splitting technique	76	92.18%
Flap splitting+ Martius graft.	6	7.32%
Total	82	100%

Table—VI

Showing results of first operation

Parameter	Cured	Failed	Total
Local repair	80	18	98
Colpocleises	1	1	2

Six out of eighteen unsuccessful cases needed transplantation of ureter into colon (Table-VII) Five cases with small residual fistula were attempted for second time local repair three months after primary operation and four got cured. Seven cases did not turn up in these centres.

Table—VII

Showing the fate of patients after failure of first operation

Operations.	No.	Cured	Failed
1. Second attempt at local repair	5	4	1
2. Transplantation of Ureter	6	No immediate Complication	
3. Did not turn up	7		

Over all success rate was 85% (Table VIII). There were six cases of vesico-vaginal fistula with complete perineal tear. Repair of fistula and perinum were done in the same sitting.

Table—VIII

Showing over all success rate after surgical management

Operation	Cured	Failed	Success rate.
Local repair	84	14	85.71%
With Colpocleises	1	1	50%

There were six cases of V. V. F. with R. V. F. In two cases colpoileisis were done where there were big V. V. F. with R. V. F. Patients were multipara and abondoned by their husbands. In four cases repair of V. V. F. with repair of R. V. F done at same sitting.

Post operative drainage was given in most cases by self retaining catheter except in a few cases stich-in indwelling catheter was used and was kept in situ for two or three weeks.

Discussion :

In this series it is observed that fistulae were of obstetrical origin. Whereas in a study of 181 cases with fistula Kettel et al (1978) found only 15% had an obstetrical origin and 75% arose after gynaecological surgery, indicating poor obstetric care in developing country.

In this study 80% of patients were cured in first attempt, another four were cured in second attempt. Chassar Moir (1973) obtained a successfull closer in all of 255 consecutive operations, mostly at first attempt.

Six patients required ureteric transplantation into sigmoid colon. Though there was no immediate complications in any of these cases yet it is an unsatisfactory procedure and it has been found that most eventually die of renal failure (Preston, 1951).

In this series it is observed that small mid-vaginal fiistulae with minimum scarring are easiest to treat. Results were less satisfactory with bladder neck and juxtra urethral fistula. Fistula with dense scarring, excessive tissue loss, adherence to bones, and those associated with recto-vaginal fistula are difficult to treat.

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PAROXYSMAL NOCTURNAL HAEMOGLOBINURIA —A CASE REPORT

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Key words :
PNH, Haemolytic anaemia

Summary :

A rare interesting case of Paroxysmal Nocturnal Haemoglobinuria is described. Clinical features were not typical of the disease. The initial impression was of hypoplastic anaemia but careful investigations ultimately lead to the diagnosis.

Introduction :

Paroxysmal Haemoglobinuria (P.N.H.) first described in late 19th century (Gull, 1866 and Strubing, 1882) is an acquired haemolytic anaemia caused by a cell membrane defect of clonal nature (Oni et al, 1970) occuring at the level of the pluripotent haematopoietic stem cell (Dessypris et al, 1983). The defect leads to increased sensitivity of erythrocytes (Rosse et al, 1966), granulocytes (Stern and Rosse, 1979) and platelets (Aster and Enright, 1969) to complement-mediated intravascular lysis.

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The bone marrow erythroid and myeloid cells and their progenitors express a similar membrane abnormality (Dessypris et al, 1983). The disease may arise from or evolve into other dysplastic bone marrow diseases including aplastic anaemia, sideroblastic anaemia and myelofibrosis. It may also evolve into acute leukaemia (Schreiber, 1983).

P.N.H. is a disease of young adults, but it may occur at any age. The disease usually presents as a chronic haemolytic anaemia of fluctuating severity, frequently accompanied by macroscopic haemoglobinuria that is characteristically exacerbated during sleep. Patients are commonly iron deficient because of large amount of iron lost in the urine as a result of haemoglobinuria consequent upon intravascular haemolysis. Platelets and leucocytes also express the cell membrane abnormlity, and thrombocytopenia and/or granuolocytopenia may be initial mainfestations of P.N.H.

Some patients with P.N.H. may present only with anaemia without overt haemoglobinuria. Such cases are liable to be missed unless the possiblities of P.N.H. is suspected. In this paper we report one of such cases.

Case report :

A 22 year old unmarried male muslim cultivator was admitted to Rajshahi Medical College Hospital with the complaints of general weakness, palpitation and easy fatiguability for four years. He had an attack of jaundice four years earlier and since then he was passing high coloured urine, specially in the morning. He was treated with various medicines including so called liver tonics and haematinics without any beneficial effect. He was non smoker and non alcoholic. Other members of his family were in good health.

On examination, patient was mildly icteric and severly anaemic. There was no lymphadenopathy. Bony tenderness was absent. There was no clubbing and koilonychia. Oedema was absent. There was no glossitis and skin was normal. Liver and spleen were not palpable. Other systemic examination was normal.

Laboratory investigations revealed his haemoglobin 5.2 gm%; total count of WBC 2,500/cmm of blood with Poly 46%, Lympho 50%, Mono 1% and Eosino 3%; ESR 40 mm in the 1st hour. Blood film showed moderate reduction of platlets and WBC. His reticulocyte count was 2.6% and Coomb's test was negative. Urine routine examination was normal and urinary urobilinogen was in normal amount. Liver function tests showed serum bilirubin 1.7 mg%, SGPT 37 IU per litre, serum Alk. Phos. 6.7 KAU per 100 ml. HBsAg was negative. Bone marrow examination showed gross erythroid hyperplasia with no evidence of marrow failure or any leukaemic change. Stainable iron in the bone marrow was absent. Urinary haemosiderin was present in large amount. Acidified serum haemolysin test (Ham's Test) was strongly positive.

Discussion :

Anaemia with pancytopenia usually arouse the suspecion of aplastic anaemia or aleukaemic leukaemia, but when a bone marrow examination reveals gross erythroid hyperplasia without any features of marrow failure or leukaemic change, one should think of other causes of pancytopenia e. g. hypersplenism, paroxysmal nocturnal haemoglobinuria etc. Thrombocytopenia and low leucocyte count has been reported as a rare complication of iron deficiency anaemia (Lopas H, 1966 and Sonnebon, 1974). In the absence of splenomegaly paroxysmal nocturnal haemoglobinuria, although a rare disease, should be considered.

Paroxysmal nocturnal haemoglobinuria is commonly undiagnosed for a period of months to years, because the classic manifestation of gross haemoglobinuria may be present only intermittently and its presence may be suspected only by repeated questioning of the patient (Dacie, 1972). In some patients a chronic haemolytic process occurs without gross haemoglobinuria. In P. N. H., the haemolytic process is particularly severe during sleep, so the urine may be purple in the morning but the colour returns to normal by the evening. If the patients sleep during the day then haemoglobinuria may occur in the evening (Weatherall and Hutton, 1987).

Occassionally, there may be periods of days or months during which there may not be any haemoglobinuria but even during this periods haemosiderinuria continues uninterruptedly. When this disease presents with only anaemia without overt haemoglobinuria, it may go unrecognised because of lack of appreciable urine colour change.

In our case the patient admitted to intermittent passage of high coloured urine on careful questioning, which was initially attributed to the associated icterus. But when the colour of his urine, observed in serial specimens collected during different times of the day, showed that the morning sample, was dark red with gradual fading of colour in the afternoon and evening sample the diagnosis of paroxysmal nocturnal haemoglobinuria was suspected. The finding of marked haemosiderinuria supported and a positive acid haemolysin test confirmed the diagnosis

Prognosis of this condition is vairable. Venous thrombosis is the major serious complication which can affect any organ (Peytremann et al, 1972). The over all 10 year survival is about 50%.

The mainstay of treatment is blood transfusion, preferably washed or packed rel cells (Gockermamom et al, 1977). Oral iron therapy is indicated when there is associated iron deficiency resulting from marked haemosiderinuria. Steroid therapy has also been suggested. This patient was treated with packed cell transfusion, oral iron, folic acid and low dose steroid. He showed signs of improvement and was discharged from the hospital with the advice to continue oral iron and folic acid and to report for periodic check up.

It is, therefore, suggested that in the absence of signs of hypersplenism, in any patient with anaemia with pancytopenia where the bone marrow fails to show any evidence of marrow failure or leukaemic changes every effort should be made to rule out the possibilities of paroxysmal nocturnal haemoglobinuria.

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CYSTOSARCOMA PHYLLOIDES—CASE REPORTS

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Key words :
Cystosarcoma, Surgery

Summary :
Two rare cases of cystosarcoma phylloides or giant fibroadenoma of breast with extreme of their physical presentation is presented with the historical background of the nomenclature of the condition and clinical presentation. The pathological behaviour, mode of spread and treatment is discussed.

Case—I

Mrs. H B, 40 years, mother of six children coming from rural area admitted in M.A.G. Osmani Medical College in Surgical Unit with an ulcerated big pendulous left breast.

She presented a history of lump in her left breast for last two years. It was painless. For last six months it was increasing in size much more raipdly and attained the present size (Fig-I).

There was no pain but weight of this breast was distressing for her. She attended a Kabiraj of her locality who gave her a paste for local application and after few applications of the paste surface of the breast became red, hot and painful and within a few days ulcers devoloped. She was then compelled to attend the Medical Collge Hospital for her treatment.

Fig 1. *Cystosarcoma Phylloides—Case I.*

The general condition of the lady was poor. She was emaciated and anaemic. On local examination her left breast was very big in size and hanged from chest wall by flaps of skin. The breast was irregular in shape

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and area of areola of the nipple was ulcerated, irregular with everted margins and the surface covered with slough and black necrosed tissue. There was a similar ulcer on the antero-lateral aspect of the breast. The skin over the breast other then margins of the ulcers was tense and free from deeper tissue. There were prominent veins on the breast extending upto chest wall. The consistency was firm and rubbery. The breast was lobular and non tender. There was no palpable lymph node in axilla and supraclavicular regions. The other breast was absolutely normal.

All the essential investigations requried for general anaesthesia was done and was found to be within normal limit except very low haemoglobin level. Her blood group was 'A'.

Under general anaesthesia simple mastactomy was done. Two units of blood transfusion was given. Her post operative period was smooth, uneventful and she left the ward on the 15th post operative day.

Examination of Specimen :

The weight was 5.5 kg and greatest circumference was about 67.5 cm. Cut section of the specimen showed circumscribed masses with intervening condensed fibrous tissues giving the appearance of lobulation. These areas were variable in character, some areas contained haemorrhagic fluid and some other areas were occupied by fleshy tissue. The whole of the specimen was sent to pathology department and histopathology report was of giant fibroadenoma of the breast.

Case-II

Mrs. Das, aged about 28 years, mother of four children was admitted in M A G Osmani Medical College in Surgical Unit with big ulcerated pendulous left breast for last four months. She presented the history that for about last two years, she had small central mass in her breast without any pain or discomfort and for last four months this mass and the breast was getting enlarged very rapidly and for last one month one ulcer developed on the lateral aspect of the breast with foul smelling and haemorrhagic discharge.

On local examination the left breast was enormous in size, surface irregular and lobulated, areola and nipple protrutded and on the lateral aspect, there was a circular ulcer with everted margin, surface was covered with granulation tissue and slough. The skin over the rest of the breast was tense and free, blood vessels were engoarged, dilated and extended upto chest and clavicle (Fig-II). The consistancy was firm and it was nontender. The lymph nodes were not palpable in axilla or supraclavicular region. Her other breast was normal.

On general examination the patient was worried and anxious. Built and nutrition was more than average. No abnormality was detected in any other system. Her menstrual history was normal. Last child is of five years of age.

All other investigations were done and found within normal limit.

Under G/A simple mastactomy was done and the post operative period was uneventful. The specimen was 5 kg in weight and about 57.5 cm in greatest circumferance. On cut section there were circular areas looking capsulated by the intervening thickened fibrous tissue. The circular areas were cystic in some places and fleshy in others. A large piece was sent for histopathological

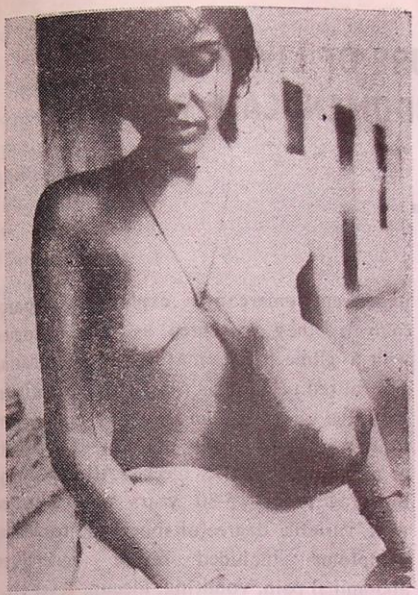

Fig 2. *Cystosarcoma Phylloides—Case II.*

examination and the report was one of giant fibroadenoma.

Discussion :

Cystosarcoma Phylloides has got long historical back ground regarding its incidence and behaviour.

The age incidence of such cases is usually between 15 years and 70 years (Pollack, 1958). Present cases were both in middle age. This tumour originates from precxisting fibroadenoma and this has been supported by Taylor (1985) that it is a variant of fibroadenoma breast. In these presented cases there were history of lump in the breast for quite a considerable time.

This tumour was thought to be innocent but recently it has been accepted that it is not always innocent, a small percentage being highly malignant in nature (Cooper & Ackerman, 1943). The malignant one grows very rapidly and shows wide spread metastasis with fatal termination. In these presented cases the histopathologist did not find any malignant cells. This tumour may remain in a quiscent state for a long time but sudden rapid growth may lead to ischemia and necrosis resuiting in ulcer formation.

Mode of metastasis is usually by blood stream and rarely by lymphatics. Because of blood stream metastasis the malignant variant is very dangerous as because the spread may be very rapid and wide spread. It may spread by local infiltration also (Cooper & Ackerman, 1943).

The treatment of such cases when it is benign is local excision. But when it is very large in size simple mastactomy is the treatment of choice.

In the malignant ones simple mastactomy followed by radiotherapy would be just effective as radical mastactomy plus radiotherapy. Traves and Sunderland (1951) reported a series of 71 cases out of which 41 treated only by simple mastactomy were without recurrence, 18 cases were borderline and four cases had recurrence, and eight cases had fatal outcome, due to distant metastesis.

Acknowledgement :

We are thankfull to the Director, MAG. Osmani Medical College Hospital for his kind permission to utilise the clinical material for publication.

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INTRAPERITONEAL RUPTURE OF LIVER ABSCESS PRESENTED AS ACUTE ABDOMEN–CASE REPORTS

M A Salam

Key words :
Liver abscess, Acute abdomen

Summary :

Intraperitoneal rupture of liver abscess is a serious complication of amoebic liver abscess abdomen. In District General Hospital, Comillea five cases of ruptured amoebic liver abscess under went exploratory laparotomy from July '86 to July '88. The diagnosis of liver abscess was done on the basis of clinical features, typical chocolate colour pus and response to anti-amoebic therapy, but examination of swabs from margin of abscess did not show any form of E. histolytica.

Introduction :

Amoebic hepatitis or liver abscess are not usually considered as surgical emergencies. But when it ruptures intraperitoneally it can cause a fulminating peritonitis giving rise to a typical case of acute abdomen. In tropical countries where amoebic liver abscess are common this condition should be borne in mind to be considered in the diagnosis of acute abdomen.

Clinical Material :

In general hospital, Comilla, during July 1986 to July 1988 five cases (four male and one female) of ruptured amoebic liver abscess underwent emergency exploratory laparotomy as they presented as acute abdomen with a clinical presentation of fulminating generalized peritonitis. In most cases presumptive diagnosis made was either perforated peptic ulcer, perforated appendix or perforated enteric ulcer. All cases varying in age from 15-30 years were admitted with variable degree of shock and toxaemia. Symptoms included severe generalized abdominal pain, vomiting, hiccup, fever etc.

Findings included abdominal rigidity, rebound tenderness and paralytic ilius. All the cases showed poly leucocytosis ranging from 14,000 to 21,000 per cumm. With a differential poly count 74% to 82%. Plain film abdomen in erect posture showed multiple fluid and gas levels.

Treatment :

All the patients were received in a state of shock and resuscitated with blood transfusion, I/V fluid and broad spectrum antibiotic were given before operation. Laparotomy in all five cases showed that the peritoneal cavity was full of foul smelling brown colour pus. At the outset it was difficult to locate the source of pus. Through search confirmed that the pus was running from abscess cavity in the liver.

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In all five cases abscess was solitary and located in the right lobe of liver measuring about 4 cm to 6 cm in diameter. 1.00 to 1.50 liter of pus was drained. Direct microscopy of swab from abscess wall and pus did not show any organism. The peritoneal cavity and all the organs were thoroughly cleaned with swab using normal saline. Then the abdomen was closed in layers putting a drain in the subdiaphragmatic space, which was removed after 48 hours.

In the postoperative period all the patients received parentral metronidazol 500 mg. t.i.d. in addition to broad spectrum antibiotics which was converted to oral therapy later.

Result :

There was no mortality in this series, wound infection was present in all five cases and one had dehisence. This patient had incisional hernia later.

Three patients developed sinus through the drainage area which persisted for few weeks.

Discussion :

Amoebic liver abscess is a common clinical condition in this country as in many other tropical countries (Ajao, 1981). Rupture of liver abscess in peritoneal cavity is a rare and unfortunate surgical catastrophy in neglected or maltreated amoebic liver abscess. Even unruptured liver abscess may mimic an acute abdomen (Ajao, 1983). Intraperitoneal rupture occurs in 5-10% of patients with amoebic liver abscess and the reported mortality of such complications has ranged from 50-70% (Wary, 1964), Ramchandran (1974) described a syndrome of pre-rupture. The diagnosis was usually made with some degree of certainity on the basis of clinical presentation. Characteristic chocolate colour pus and response to anti amoebic therapy. Abioya and Ogunba (1973) described a gel diffusion test which is proved to be encouraging as a further aid to diagnosis. In this series the abscess was solitary. Although Lewis and Anita (1970) have shown that multiple liver abscesses can occur.

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