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(See page 29)

STUDY OF DIRECT IMMUNOFLUORESCENCE PATTERNS IN DIFFERENT CUTANEOUS DISORDERS

M E Haq[1], A N N Ahmed[2], T A Nasir[3], K M N Islam[4]

Key words :

Direct immunofluorescence, Cutaneous disorders.

Summary :

Direct immunofluorescence study was carried out with the skin biopsy specimens from 50 patients suffering from different cutaneous disorders to detect the frequency, type and site of depositions of immunoglobulins IgG, IgM, IgA, C_3 and fibrin. Though immunofluorercence findings varied from one type of disease to another and also in the same type of skin disease, yet one type of immunofluorescence pattern was found to be predominant in a specific disease. Similarity in immunofluorescence patterns relating to frequency, type and site of depositions of IgG, IgM, IgA, C_3 and fibrin was also noted in different cutaneous disorders. So it can be expected that direct immunofluorescence findings show variation in frequency, type and site of depositions of IgG, IgM, IgA, C_3 and fibrin in different cutaneous disorders and also in the same skin disease. Therefore, the immunofluorescence findings should be correlated with other findings like clinical and histopathological to reach a definite diagnosis.

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Introduction :

The direct Immunofluorescence technique was first employed by Burnham et al in 1963 in the study of skin lesions of lupus erythematosus, psoriasis and certain other dermatoses (Burnham et al, 1963). Subsequently many investigators have applied this technique to study different dermatological disorders. Their study revealed deposition of immunoglobulins, complements and fibrin within the affected tissue and also in the normal tissue. From various reports published it was fonnd that there was discrepancy in their findings such as in the nature of deposition, type of deposition and site of deposition. Such variation in immunological findings though not equally seen in all skin diseases, it is found to be quite remarkable in some conditions such as dermatitis herpetiformis, psoriasis and certain other skin diseases. These variation pose some problems in the exact interpretation of immunofluorescence

findings. It seems that there is a need to further study the pattern after employing the usual technique. This is likely to yield additional informations which would be helpful in establishing morphological guidelines for the interpretation of immunofluorescence findings.

Therefore the present study was undertaken to detect the frequency, type and site of depositions of immunoglobulins IgG, IgM, IgA, C_3 and fibrin by direct immunofluorescence technique in various cutaneous disorders.

Materials and Methods :

Skin biopsies were collected from 50 patients suffering from various cutaneous disorders. The diagnosis of these cases were based on characteristic clinical features. Sites of skin biopsies were selected according to the cases. Normal skin from a healthy person was used as a control.

A full thickness elliptical excisional biopsy specimen was taken with a 2% lidocain local anaesthesia. The tissue was then processed for direct immunofluorescence study. For processing the biopsy specimen quick freezing method was adopted (Jablonska et al, 1975). The tissue was carried in a dry test tube and immediately allowed to quick freeze.For quick freezing of the biopsy specimen the fresh specimen was mounted quickly in a cryostat without storage in a frozen state. In the cryostat the tissue was allowed to quick freeze at 20°c in two minutes. After quick freezing of the biopsy tissue, sections were cut at 8 micron thickness. Then the sections were taken on glass slides and dried with fan for 10 minutes. The slides were then washed by immersing in PBS at pH 7.4 in koplin jars for 10 minutes. The sections were covered with diluted antisera against human IgG, IgM, IgA, C_3 and fibrin. The antisera were commercially prepared (Dakopatts) fluorescein isothiocyanate conjugated rabbit immunoglobulins to human IgG, IgM, IgA, C_3 and fibrin. The antisera were diluted in PBS as follows (Abell et al, 1975) :

Anti-IgG	diluted	1:30
Anti-IgM	,,	1:20
Anti-IgA	,,	1:10
Anti-C_3	,,	1:30
Anti-fibrin	,,	1:30

The sections were then incubated at 37°c for 30 minutes in a moist chamber. After incubation the sections were washed by immersing the slides in PBS in koplin jars for 30 minutes in three successive changes. The sections were then dried again with fan for 10 minutes. Then the sections were mounted with buffered glycerol. The sections were examined with a fluorescence microscope with transmitted light.

Results :

Among the 50 cases, eight (16%) cases were diagnosed as dermatitis herpetiformis, one (2%) as bullous pemphigoid, six (12%) as lichen planus, four (8%) as discoid lupus erythematosus, two (4%) as psoriasis and five (6%) as cutaneous amyloidosis. twenty six (52%) cases were negative. None of the cases of systemic lupus erythematosus, pemphigus, scleroderma, prophyria cutanea tarda and cutaneous vasculitis showed positive findings. The result is shown in table-I.

Direct immunofluorescence findings of different cutaneous disorders of the present series are as follows :

Table—I

Direct immunofluorescence diagnosis of 50 cases of skin biopsy specimens

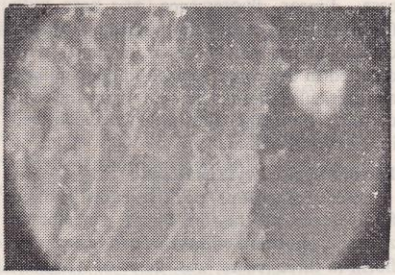
Direct immunofluorescence diagnosis	Number of cases	Percentage
Dermatitis herpetiformis	8	16
Bullous pemphigoid	1	2
Lichen planus	6	12
Discoid lupus erythematosus	4	8
Psoriasis	2	4
Cutaneous amyloidosis	3	6
Negative	26	52
Total	50	100

Dermatitis Herpetiformis :

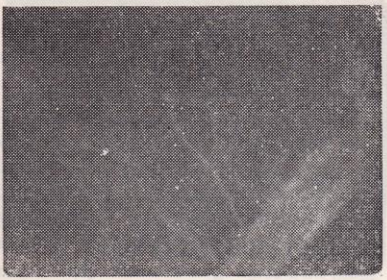
Among the eight positive cases deposition of fibrin was seen in seven cases. Fibrin deposition was seen in the dermal papillae in six cases and at the basement membrane zone in two cases. In one case fibrin deposit was seen both in the dermal papillae and at the basement membrane zone. Deposition of IgA alone at the basement membrane was seen in only one case (Fig. 1). In one case there was deposition of IgG and C_3 in addition to fibrin in the dermal papillae and basement membrane zone. All these deposits were found at the sites of skin lesions except in one case in which fibrin deposit only was found in uninvolved skin. The type of fluorescence was mostly granular as seen in four cases. Speckled fluorescence was observed in three cases and linear fluorescence in two cases. In one case mixed linear and speckled fluorescence was seen. The fluorescence at the dermal papillae was seen mostly at the tips.

Lichen Planus :

All the six positive cases revealed deposition of fibrin at the basement membrane zone (Fig. 2). One case also showed IgA deposition in addition to fibrin. All these deposits were seen at the skin lesions. The type of fluorescence was granular in four cases and linear in two cases. In two cases the granular fluorescence was broad and very intense with small extensions into the epidermis and upper dermis. Granular fluorescence was observed with fibrin in four cases and with IgA in one



Fig—1. *Dermatitis herpetiformis : Skin biopsy showing linear fluorescence at the basement membrane zone (BMZ) due to IgA deposition (DIF×75).*



Fig—2. *Lichen planus : Skin biopsy showing brosd granular fluorescence at the basement membrane zone (BMZ) due to fibrin deposition (DIF×600).*

case. Linear fluorescence was seen with fibrin in two cases. In addition to this, cytoid bodies singly or in clusters were detected in five cases located in the papillary and reticular dermis as well as in the epidermis. Both IgG and IgM were identified in the cytoid bodies.

Discoid Lupus Erythematosus :

All of the four positive cases showed fluorescence at the basement membrane zone. Deposition of IgM in two cases and fibrin in three cases was detected (Fig. 3). In one case both IgM and fibrin were present. All the deposits occured at the sites of skin lesions. Fibrin deposit was linear in two cases and solid broad band in one case. IgM deposit was granular in one case and linear in another. In addition, cytoid bodies were present in all the four cases, mostly in the upper dermis and in one case in the epidermis. The cytoid bodies were found singly and in clusters. IgM deposition in the cytoid bodies was also found. Less frequently IgG, IgA and fibrin deposits were seen in the cytoid bodies. One case showed granular fluorescence around blood vessels due to fibrin deposit.

Fig—3. *Discoid lupus erythematosus : Skin biopsy showing granular fluorescence at the basement membrane zone (BMZ) due to IgM deposition. (DIF×300)*

Cutaneous Amyloidosis :

In all the three positive cases deposition of IgM was demonstrated in the dermal papillae. The type of fluorescence was globular. In one case globular fluorescence in the dermal papillae due to IgA deposition was also seen associated with IgM. This same case also revealed granular fluorescence in the dermal papillae due to C_3 deposition. The skin biopsies were taken from lesion sites.

Psoriasis :

In the two positive cases deposition of IgG and fibrin was seen both at the basement membrane zone and in the dermal papillae. In one case IgG and in another case fibrin deposits were present. Type of fluorescence was granular in both the cases. Cytoid bodies due to IgM deposits were also found in one case. The biopsy tissues were taken from lesion sites.

Bullous Pemphigoid :

Fibrin was found along the basement membrane zone (Fig. 4). The type of fluorescence was linear with C_3 and granular with fibrin. Skin biopsies included vesicular lesion and its adjacent normal skin.

Fig—4. *Bullous pemphigoid : Skin biopsy showing linear fluorescence at the basement membrane zone (BMZ) due to C_3 deposition. (DIF×300)*

Negative Findings :

Among the 50 cases 26 cases showed negative result.

Control :

The normal skin from a healthy person that was used as control showed blue green autofluorescence of the epidermis, collagen bundles and elastic fibres. Diffuse patchy nonspecific green fluorescence was seen in the dermis. The epidermis also demonstrated nonspecific green fluorescence.

The result of the positive cases of the direct immunofluorescence study using specific antisera to human IgG, IgM, IgA, C_3 and fibrin are shown in Table-II.

Discussion :

In the present study deposition of fibrin was the commonest finding in dermatitis herpetiformis. Mustakallio et al (1970) in their study also found fibrin deposition at the site of early skin lesions but not in uninvolved skin. Tuffanelli (1975) also expressed similar view. But it has been reported that IgA deposit can be seen more easily in the initial urticarial lesions, Tuffaneli (1975). Chorzelski et al (1971) and Reunala et al (1984) in their study showed that immunoglobulins mainly IgA deposit was found at the uninvolved skin. Mckee et al (1978) also found that the predominant deposition was IgA at the uninvolved skin and also at the erythematous plaque adjacent to the vesicular lesion. It has also been stressed that a single examination may be insufficient for the detection of IgA deposition. Therefore it has been suggested that a large number of sections must be examined. Katz and Strober (1978) showed that IgA and C_3 were found at all skin sites including skin lesions. Harrist and Mihm (1979). mentioned that IgG and IgM can also be found but their frequency are less common. Ongley (1978) showed that lesional skin of dermatitis herpetiformis had IgG in addition to IgA in 20% of cases. In the present study IgG and C_3 deposition was found in addition to fibrin in one case. The common site of deposition in dermatitis herpetiformis in the present study was in the dermal papillae, particularly at the tips. Less commonly deposits were found at the basement membrane zone. This finding agrees with other reported results (Mustakallio et al, 1970 ; Mckee et al, 1978). In the present study the type of fluorescence in dermatitis herpetiformis was mostly granular followed by speckled fluorescence. Linear fluorescence was seen less commonly. In one case mixed linear and speckled fluorescence was also seen. Chorzelski et al (1971)and Reunala et al (1984) have also shown that the deposition was most commonly granular. However, speckled, fibrillar, homogeneous, globular, crescentic and mixed arrays were also observed (Tuffaneli, 1975).

The present result concerning the occurrence of fibrin at the basement membrane zone of skin lesions of lichen planus corroborates the earlier findings of Salo et al (1972) and Varelzidis et al (1979). But fibrin deposition in the dermal blood vessels was not detected as described by Varelzidis et al (1979). Deposition of IgA in addition to fibrin at the basement membrane zone was found in the present study. These findings agree with those reported by Ueki in 1969 and Baart de La Faille-Kuyper and Baart de La Faille in 1974 (Varelzidis et al, 1978). In the present study the commonest type of fluorescence observed

Table—II

Results of the direct immunofluorescence study using specific antisera to human IgG, IgM, IgA, C_3 and fibrin

Name of the diseases	No. of Positive cases	Deposits at the basement membrane zone					Deposits in the dermal papillae					Patterns of deposits					Cytoid bodies
		IgG	IgM	IgA	C_3	Fibrin	IgG	IgM	IgA	C_3	Fibrin	Linear	Granular	Speckled	Solid	Globular	
Dermatitis herpetiformis	8	1		1	2		1			1	6	2	4	3			
Lichen planus	6			1	6							2	4				5
Discoid lupus erythematosus	4		2		3							2	1		1		4
Cutaneous amyloidosis	3							3	1	1			1			3	
Psoriasis	2	1				1	1				1		2				1
Bullous pemphigoid	1				1	1						1	1				

in lichen planus was granular. Linear fluorescence was seen less frequently. This result partly agrees with the findings of Baart de La Faille-Kuyper and Baart de La Faille (Harrist and Mihm, 1979). Broad granular fluorescence at the basement membrane zone with thread like extensions into the upper dermis was reported by Salo et al (1972) and Varelzidis et al (1979). Similar findings were also observed in the present study. The present findings of IgG and IgM in the cytoid bodies were in agreement with the results of Varelzidis et al (1979).

In the present study fibrin deposition was the most common finding at the basement membrane zone of involved skin in discoid lupus erythematosus. This finding corroborates with the results of Salo et al (1972). IgM depostition at the basement membrane zone was also detected in the present study. This finding agrees with that of Pohle and Tuffanelli (1968) and Burnham and Fine (1969). Chorzelski et al (1969) demonstrated that complement was the common finding at the basement membrane zone. Next to it in frequency was IgG which was present either alone or in combination with IgM or very rarely with IgA. IgG deposition was the most common finding in the study of Burnham and Fine (1969). The type of fluorescence in discoid lupus erythematosus detected in the present study was linear, granular and solid broad band. Linear fluorescence was more frequent. Tuffanelli et al (1969) reported granular type of fluorescence at the basement membrane zone in their study. They also observed homogenous fluorescence. Harrist and Mihm (1979) have mentioned that a granular type of fluorescence is a common finding in discoid lupus erythematosus. Solid band of fluorescence was observed by Pohle and Tuffanelli (1968) and Burnham and Fine (1969). Deposition of IgM, IgG, IgA and fibrin in the cytoid bodies were detected in the dermis and epidermis by some investigators (Harrist and Mihm, 1979). These findings are consis tent with the present study.

The most common finding in cutaneous amyloidosis in the present study was globular fluorescence of IgM in the dermal papillae. This finding is consistent with those of Macdonald et al (1977). They were also able to detect deposits of IgG, IgA and C_3 in addition to IgM. In the present study IgA and C_3 were found in one case but no IgG was found. Deposition of C_3 revealed granular fluorescence in the present study which was absent in the study of Macdonald et al(1977).

In the present study skin biopsies of psoriasis showed IgG and fibrin deposition at the basement membrane zone and in the dermal papillae. Both the cases revealed granular type of fluorescence. These findings are consistent with Doyle et al (1981) except that no deposits were seen in the dermal papillae in their study. In addition IgA and C_3 deposition at the basement membrane and in the dermal blood vessels were detected by Doyle et al (1981). However, such findings were not found in the present study. Many authors found in vivo bound IgG in the intercellular areas of stratum corneum in psoriatic skin lesions (Harrist and Mihm, 1979). But it was not found in the present study.

Deposition of C_3 and fibrin at the basement membrane zone in bullous pemphigoid found in the present study was

also detected by Jordon (1975). But in the present study immunoglobulins could not be detected as described by Jordan et al (1971) and Ahmed et al (1977). Mckee et al (1978) demonstrated linear type of complement deposition along the basement membrane zone. This is in agreement with the present study. In the present study granular fluorescence due to fibrin deposition was also seen.

From the present study it can be concluded that variation in immunological findings is not unlikely. These may be related to a number of factors. As the immune response is a continuous process, the local changes may not be always similar. Therefore same results may not be expected always. Individual variation in immunological response may also be a factor for discrepancy in immunological findings. Age of the lesions, recent or old, is also an important factor. Mustakallio et al (1970) suggested that in the early losions of dermatitis herpetiformis fibrin network may have been stabilized by the fibrinolytic inhibiting factor of epidermis. Modification of immunological response either spontaneously or by drugs or by unknown factors may also be responsible for variations in immunological findings. Degradation of immunoreactants by local degradative process may also influence the immunological findings.

So to reach a definite diagnosis the immunofluorescence findings should be correlated with clinico-histopathological features.

References :

1. Abell E, Presbury DGC, Marks R and Ramnarain D : *The diagnostic significance of immunoglobulin and fibrin deposition in lichen planus.* Br J Dermatol, 93 : 17-24, 1975.
2. Ahmed AR, Maize JC and Provots TT : *Bullous pemphigoid. Clinical and immunological follow-up after successful therapy.* Arch Dermatol, 113 : 1043-1046, 1977.
3. Burnham TK and Fine G : *The immunofluorescent band test for lupus erythematosus. I. Morphologic variations of the band of localized immunoglobulins at the dermal epidermal junction in lupus erythematosus.* Arch Dermatol, 99 : 413-420, 1969.
4. Burnham TK, Neblot TR and Fine G. *The application of the fluorescent antibody technic to the investigation of the lupus erythematosus and various dermatoses.* J Invest Dermatol, 41 : 451-456, 1963.
5. Chorazelski TP, Beutner EH, Jablonska S, Blaszczyk M and Triftshauser C: *Immunofluorescence studies in the diagnosis of dermatitis herpetiformis and its differentiation from bullous pemphigoid.* J Invest Dermatol, 56 : 373-380, 1971.
6. Chorzelski T, Jablonska S and Blaszczyk M. *Immunopathologic investigations in erythomatosus.* J Invest Dermatol, 52 : 333-338, 1969.
7. Doyle JA, Muller SA, Rogers RS and Schroeter AL: *Immunofluorescence in psoriasis: a clinical study of sixty patients.* J Am Acad Dermatol, 5 : 655-660, 1981.
8. Harrist TJ and Mihm MC: *Cutaneous immunopathology. The diagnostic use of direct and indirect immunofluorescence*

technics in dermatologic diseases. Hum Pathol, 10 : 625-653, 1979.

9. Jablonska S, Chorzelski TP, Beutner EH, Michel B, Cormane RH, Holuber K, Been SF, Blaszczyk M, Ploem J and Saikia NK : *Uses of immunofluorescence tests of skin and sera. Utilization of immunofluorescence in the diagnosis of bullous diseases, lupus erythematosus and certain other dermatoses.* Arch Dermatol, 111 : 371-381, 1975.

10. Jordon RE: *Complement activation in bullous skin diseases.* J Invest Dermatol, 65 : 162-169, 1975.

11. Jordon RE: Triftshauser CT and Schroeter AL: *Direct immnnofluorescence studies of pemphigus and bullous pemphigoid.* Arch Dermatol, 103 : 486-491, 1971.

12. Katz SI and Strober W: *The pathogenesis of dermatitis herpetiformis.* J Invest Dermatol, 70 : 6 -75, 1978.

13. Macdonald DM, Black MM and Ramnarain N: *Immunofluorescence studies in primary localized cutaneous amyloidosis.* Br J Dermatol, 96 : 635-640, 1977.

14. Mckee PH, Sanford JC and Oakman AD: *The use of immunofluorescent techniquess in dermatology.* Ulster Med J, 47 : 195-205, 1978.

15. Mustakallio KK, Blomqvist K and Laiho K: *Papillary deposition of fibrin, a characteristic of initial lesions of dermatistis herpetiformis.* Ann Clin Res, 2 : 13-18, 1970.

16. Ongley RC : *Cutaneous immunofluorescent microscopy: a practical diagnostic technique.* Can Med Assoc J, 118 : 151-152, 1978.

17. Pohle EL and Tuffanelli DL: *Study of cutaneous lupus erythematosus by immunohistochemical methods.* Arch Dermatol, 97 : 520-526, 1968.

18. Reunala T, Rantala I, Pihlman K and Linder E: *Microfibrils of elastic fibres as a major site of IgA deposition in dermatitis herpetiformis: an immunofluorescence and immunoelectron microscopical study.* In Macdonald DM. Immunodermatology Butterworth & Co.(Publishers) Ltd., London, 1984.

19. Salo OP, Tallberg T and Mustakallic KK: *Demonstration of fibrin in skin diseases. I. Lichen ruber planus and lupus erythematosus.* Acta Derm Venereol, 52 : 291-294, 1972.

20. Tuffanelli DL: *Cutaneous immunopathology: Recent observations.* J Invest Dermatol, 65 : 143-145, 1975.

21. Tuffanelli DL, Kay D and Fukuyama K: *Dermal-eidermal junction in lupus erythematosus.* Arch Dermatol, 99 : 652-662, 1969.

22. Varelzidis A, Tosca A, Perissics A and Capetanakis J : *Immunohistochemistry in lichen planus.* Dermatologica, 159 : 137-144, 1979.

CLINICAL PRESENTATION OF CARCINOMA LARYNX

M N Amin, P G Datta, A S A Amin, A Kadir

Key words :
Carcinoma larynx, presentation.

Summary :

Clinical presentation of 67 cases of carcinoma of the larynx was analysed. The mean age of the patients was 57.5 years and 54.3 years for males and females respectively. The commonest symptom was hoarseness of voice (64.18%). Thirty five (52.23%) patients had regional lymphnode involvement. Most of the patients (67.2%) had supraglottic lesion followed by glottic (31.3%) and subglottic (1.5%) types. Naked eye appearance was exophytic in 56.71% and ulcerative in 43.29% cases. Histopathology suggested all the growths to be squamous cell carcinoma. Almost all male patients (98.33%) and 28.57% female patients had habit of smoking and 94.03% of the patients had habit of chewing betel leaves. Their treatment and follow up results are discussed.

Introduction :

Carcinoma larynx hampers three of the most vital functions of the sufferers viz voice, respiration and swallowing in that order by virtue of its anatomical location, local infiltration and direct extension. Smoking tobacco, chewing betel leaves with various ingredients, drinking alcohol and many other occupational factors have been seriously implicated in its aetiology (Hinds et al, 1979 ; Ogura, 1955). Clinical presentation varies with the type of cancer : Glottic, Supraglottic or Subglottic.

Material and Methods :

The present study aims at studying the clinical presentation of carcinoma of the larynx. For the purpose of the study 67 patients were collected from both indoor and outdoor of different medical institutions of Dhaka city, ages ranging from 37 to 82 years and belonging to different socio-economic conditions and professions.

The diagnosis of carcinoma of the larynx was established after consideration of history, clinical and radiological examination, laboratory investigations, endoscopic examination and finally with histopathological examination.

In every case, a full haematological and biochemical profile including necessary routine medical examinations and E C G were done. Each patient was screened for diabetes, tuberculosis and syphillis.

After full clinical examination and necessary laboratory investigations, all the patients were subjected to direct laryngos-

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copy under general anaesthesia for biopsy and histopathological examination. The site of origin, nature of growth, its extension and limit and the mobility of the larynx including that of the vocal cords were carefully assessed.

Results :

Out of 67 patients included in the study, the lowest and highest age at presentation was 37 years and 82 years respectively with a mean of 57.5 for males and 54.3 for females as detailed in figure—1. Male and female ratio was 8.57 : 1.

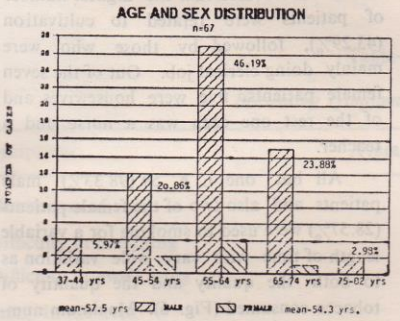

FIG-1

Almost all the patients presented with more than one symptom. The commnest presenting symptom was hoarseness of voice (64.18%), followed by difficulty in breathing (53.73%), difficulty in deglutition (47.76%) and lump in the neck (52.23%). The detail of the presenting symptoms is shown in table—I.

Out of 67, 35 patients had their regional lymphnode involved (52.23%). Out of which 22, six and seven (62.83%, 17.15% and 20.02% respectively) cases had N_1, N_2 and N_3 types as shown in Fig. 2 and 3.

Table—1

Findings on local and general examination

Findings	No. of cases	%
Altered voice	43	64.18
Neck mass (detailed below)	35	52.23
Foul breath	24	50.74
Laryngeal movement : Hemi-larynx-One or other, fixed	18	26.87
,, ,, impaired	37	55.22
,, ,, normal	12	17.91
Inspiratory stridor+suction	7	10.45
Health status :		
Nearly good	19	28.35
Poor to average	41	51.18
Debilitated	7	10.45
Loss of crepitus on movement of thyroid cartilage on cervical vertebrae	2	3.00

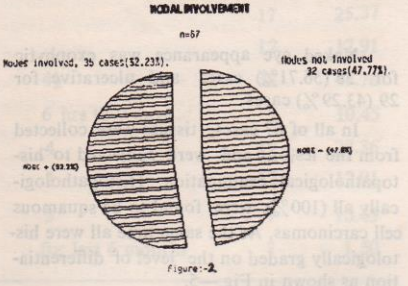

Figure:-2.

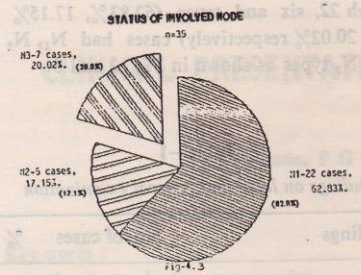

Fig-4.3

Direct laryngoscopy showed 45 cases (67.2%), 21 cases (32.3%) and only one case (1.5%) had lesions involving their supraglottic, glottic and subglottic regions respectively as shown in Fig—4.

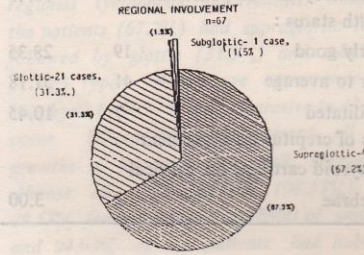

Figure 4

Naked eye appearance was exophytic for 38 (56.71%) cases and ulcerative for 29 (43.29%) cases.

In all of 67 cases, tissues were collected from the lesions and were subjected to histopathological examination Histopathologically all (100%) were found to be squamous cell carcinomas. At the same time all were histologically graded on the level of differentiation as shown in Fig.—5.

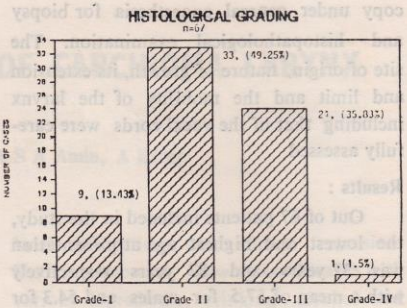

Fig-5

It was revealed that the highest number of patients were related to cultivation (43.29%), followed by those who were mainly doing clerical job. Out of the seven female patients, five were housewives and of the rest one each was a nurse and a teacher.

All but one i. e. 59 (98.33%) male patients and also two of the female patients (28.57%) were used to smoking for a variable length of time with vary wide variation as to both the quality and the quantity of tobacco consumed (Fig. 6). Maximum number of patients, 27 out of 61 (44.26%) were smoking for 21 to 30 years. Only one (1.64%) male patient had been smoking for more than 50 years taking 10-30 sticks daily. Nearly 50% of the smokers were using hokka, biri or both.

Sixty three patients inclusive of all the females (94.03%) had the habit of chewing betel leaves with other ingredients in different combination and proportion. The frequency of taking daily and the quantity taken at a time, varied widely so also varied were the durations as shown in Fig. 7.

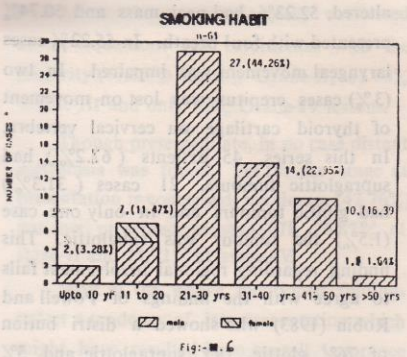

Fig:-6

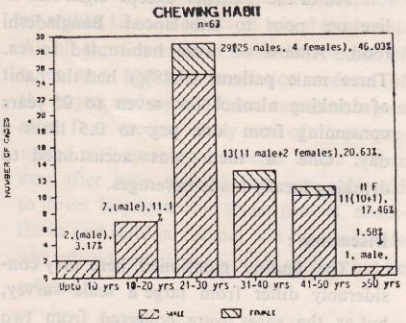

Fig:-7

Table—II

Presenting symptoms with duration

Symptoms	Average duration in months	No. of cases	%
Hoarseness of voice	7	43	64.18
Difficulty in breathing	3½	36	53.73
Difficulty in swallowing	3	32	47.76
Lump in the neck	2	35	52.23
Pain in throat	3	29	43.28
radiation to homolateral ear,		17	25.37
non radiating		12	17.91
Foreign body sensation (throat)	4½	32	47.76
Dyspnoea with stridor	6 hrs to 7 days	7	10.45
Cough (irritating)	4	19	28.36
Excess salivation	3	12	17.91
Deterioration of health	3	7	10.45
Occasional bleeding	for last 6 months	1	1.50

All of the patients except eight had to live on poor to unbalanced Bangladeshi food. Almost all were habituated to tea. Three male patients (4.48%) had the habit of drinking alcohol for seven to 25 years consuming from one peg to 0.5 litres a day. One of them was accustomed to drinking locally made beverages.

Discussion :

The finding mentioned here may considerably differ from large a scale survey, but as the cases were collected from two hospitals of national referral level, the study might reflect certain facts regarding clinical presentation of carcinoma of the larynx atleast in the perspective of our country.

The maximum number of patients (73.13%) presented in the fifth and sixth decade with a mean age of 57.5 years which is quite consistent with the findings of Ogura et al (1965). In this series, male to female ratio is 8.57:1, that agrees with figures for England and other European countries as quoted by Olofsson et al (1973) and Robin (1983) (7 to 8:1).

Almost all the patients presented with multiple symptoms. Hoarseness of voice was the commonest (64.18%) symptom to present with followed by difficulty in breathing (53.73%), difficuity in deglutition (47.76%) and pain in the throat (43.28%). Seven patients (10.45%), presented with dyspnoea and stridor with suction of varying degree and had to be relieved by immediate tracheostomy. One patient complained of occasional bleeding for previorus six months.

On analysis of the findings, it was revealed that 64.18% patients had their voice altered, 52.23% had neck mass and 50.74% presented with foul breath. In 55.22% cases laryngeal movement was impaired. In two (3%) cases crepitus was lost on movement of thyroid cartilage on cervical vertebra. In this series, 45 patients (67.2%) had supraglottic tumours, 21 cases (31.3%) had glottic tumours and in only one case (1.5%) the tumour was subglottic. This finding regarding regional involvement fails to agree with the findings of Powell and Robin (1983) who showed a distri bution of 76% glottic, 19% supraglottic and 5% subglottic but does nearly agree with Stell and Maran (1979) who mentioned of incidence of about 60% for supraglottic tumours in U K with a range down to 15%. They also quoted 60% of supraglottic involvement in Belgrade. Differences of work load, the vocal strain in normal average utilisation, differences in dietary and personal habits and still many other unidentified factors may be responsible for these differences.

As to the extension of tumour, maximum number of patients (52.23%) had T3 lesions. Seven cases (10.45) had T4 lesions which indicates late presentation.

A total of 35 cases (52.23%) presented with neck mass. 71.11% of supraglottic, 9.52% of glottic and 100% of subglottic growths had neck metastases. Incidence of metastesis is relatively higher in present study. It was because cases presented very late.

In five cases there were bilateral, in one case contralateral and in seven cases nodes were fixed.

All cases were histologically confirmed to be squamous cell carcinomas with the majority (49.25%) having Grade-II, 35.83% Grade-III and only 1.5% Grade-IV lesions.

Though presented late, in no case distant metastasis was found. As for the stage at presentation is concerned, maximum (47 76%) patients presented at stage-III, 26.87% at stage-II and 14.92% at stage-IV.

Most of the above mentioned findings reflect a tendency of late presentation which might have resulted from overall ignorance of the gravity of the disease process, financial contraints, lack of hospital facilities near at hand, false assurance by quacks and non-medical practitioners, fear of loss incurred by absence from work and lack of transport faciiities, (any, some or all of them acting together) as stated by the patients.

Most (88.07%) of the patients were muslims. Most of them (43.29%) came from low-income group, having an income of Tk. 1,000 per month per unit family, 80.06% used to live on poor to average unbalanced Bengali diet, 91.04% were smokers, 94.02% were chewers and 64.18% were drinking alchol mostly counrty liquours and only 6.98% were taking distilled beverages.

Laryangeal carcinoma, like all other head and neck cancers, are best treated by multidisciplinary approach.

All but one (98.51) patients in this present series had been treated by radio-therapy, cobalt-60, at intervals with a total dose of 4500 to 6500 rads. The only patient left underwent total laryngectomy with block dissection of the neck on the right side.

Only eight patients reported for follow-up within 12 to 24 weeks of initial treatment. All of them presented with hoarseness of voice and had post-irradiation oedema of the larynx and were advised to report again after four weeks. Only one of them presented with persistent oedema of the larynx even after nine months and was subjected to direct laryngoscopy under general anaesthesia and residual tumour was detected. He was offered radical surgery as salvage but he refused.

The patient who had total laryngectomy with right sided block dissection developed salivary leak in the post-operative period, which healed in six weeks. On his second visit for follow-up after 24 weeks no further complication was noticed.

Most of the facts revealed in this study reflect a general propensity for presenting late. It may be concluded that most of the patients of laryngeal carcinoma present late with multiple symptoms, hoarseness of voice is the commonest of them. A good number present with cervical metastases. Incidence of supraglottic carcinoma far exceeds that of both glottic and subglottic carcinomas, the latter being very infrequent. Personal habits like smoking tobacco, drinking alcohol and chewing betel leaves with other ingredients may have some bearing upon the disease, so may be incriminated dietary habits. It is imperative to emphasize on the age-old dictum "Hoarseness persisting for more than two weeks needs the larynx to be very carefully examined".

Acknowledgement :

All the cases in this study were collected from E N T O P D and in-patient depart-

ment of IPGM&R and DMCH respectively. We must express our gratitude to the Director of DMCH and IPGM&R and Superintendent of IPGM&R for allowing us to continue this work in those hospitals.

References :

1. Hinds M W, Thomas D B and O, Reilly H P: *Asbestos, dental X-Ray, tobacoo and alcohol in the epidemiology of laryngeal cancer.* Cancer, 44 : 1114-1120, 1979.

2. Ogura J H: *Surgical pathology of carcinoma larynx.* The laryngoscope, 65 : 867-926, 1955.

3. Olofsson J, Lord I J and Van Nostrand A W P: *Vocal cord fixation in laryxgeal carcinoma.* Acta Otolaryngologica, 75 : 496-510, 1973.

4. Powell J and Robin P E: *Cancer of the Head and Neck, present state.* In : Head & Neck cancer, Ed. P. Ros Evans, P E Robin and J W L Fielding. Castle House publications, pp 3-16, 1983.

5. Stell P M et al: *Management of T³ glottic carcinoma.* Clinical Otolaryngology, 7 : 175-178, 1979.

ABDOMINAL WOUND CLOSURE WITH FISHING NYLON : REVIEW OF 300 CASES

M A Majid

Key Words :

Wound closure, Fishing nylon.

Summary :

Surgical technique is very important in the closure of abdominal wound if incisional hernia is to be prevented. Nonabsorbable suture material like Proline and Nylon are not freely available in our coutry. CCG commonly used in our country are easily available and cheap but wound failure rate with its use is very high with resultant incisional hernia. This is a study involving 300 patients whose abdominal wounds were closed with fishing Nylon which is cheap and easily available. These patients were followed up for a period of one year. There was 1% incidence of incisional hernia. Wound infection rate was 6.6%. There was no suture sinus. This material is recommended for routine use for closure of abdominal wound in our country where pre-packed sterilised non-absorbable suture materials are prohibitively expensive and difficult to obtain.

Introduction :

Sterilised pre-packed Nylon and other non-absorbable modern suture materials are obtainable in our country with difficulty. One such suture material for single use in a patient costs Taka 120.00 whereas a roll of fishing Nylon costs only Taka 250.00 and the latter can be used for closure of one hundred abdominal wounds.

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Materials and Methods :

All adult patients admitted in IPGM&R and Mymensingh Medical College Hospital between the year 1984 and 1988 under the care of the author are included in the study. All these patients had their abdominal wound closed with fishing Nylon. Children were excluded from the study. The mid-line incisions were closed monolayer and para median and Kocher's incisions were closed in two layers. Both ends of the sutures were buried The stitches were inserted 1 cm. apart and 1 cm. from the edge.

Results :

The study inchided 300 hundred patients. Age ranged from 21 to 80 years with a mean of 46.5 years. There were 210 males and 90 females. Table-I shows the type of surgical procedures performed, incision and methods of closure used.

Table—I

Shows the operations done and types of incision

Operations :

	No.	%
Biliary	135	45%
Gastroduodenal	90	30%
Small bowel	15	5%
Colorectal	48	16%
Miscellaneous	12	4%
	300	100%

Incisions used :

	No.	%
Kocher's	130	43.3%
Paramedian	50	16.6%
Mid line	120	40%

Types of closure:	No.
Monolayer	120
Two layers	180

All patients in the study were followed up for a period of one year. The complications are shown in Table—II.

Of the three patients with wound failure, one had repair of perforation with peritonitis, one was grossly obese and the other was a heavy smoker with chronic bronchitis. All three of these patients had monolayer closure of mid-line incisions. The patient's awareness of sutures and knots at either end of the incisions did not require any treatment other than reassurance.

Table—II

Shows the complications after operation

Early Complications :

	No.	%
Infections	20	6.6%
Dehiscence	2	0.6%
Serous discharge	15	5%

Late Complications :

	No.	%
Incisional hernia	3	1%
Suture sinus	0	0%
Suture awareness	10	3%

Discussion :

Strength of abdominal wound depends on its aponeurotic layer. Various suture materials and methods of closure have been used over the years and its effectiveness have been assessed.

Incised aponeurotic layer of abdomen regains 20 to 80% of its original strength exponentially between four and eight weeks after surgical trauma. Chromic cat gut commonly used in our country with financial constraints does get absorbed before the wound gets consolidated and healed and before collagenous aponeurotic layer, linea alba and rectus sheath become fully mature.

As shown by in vivo study, C. C. G. retains its strength for three weeks, vicryl five weeks, PDS nine weeks and Nylon

indefinitely (Binni et al, 1986). Nylon is the material of choice for closure of abdominal wound for preventing wound failure and incisional hernia.

Although the technique of abdominal wound closure is fundamental but suture material is equally important in the prevention of wound failure. Sterilised prepacked non-absorbable suture materials like Proline and Nylon used in the western world has reduced the incidence of incisional hernia to less than 1% (Fischer and Turner, 1974). Fishing Nylon used in this study compares favourably well with the monofilament Nylon used in affluent western countries.

So, fishing Nylon is recommended as a suture material for patients in countries like ours with resource constraints.

References :

1. Binnie N R, Brain Bridge C L, Macin Tyre IMC: *Abdominal wound closure with P.D.S.* Royal Coll Surg of Edin, 31 : 147, 1986.
2. Fischer JD and Turner FW; *Abdominal incisional hernia, ten years review.* Can J Surg, 17 : 204-4, 1974.

HEAD INJURY IN TAIF–A REVIEW OF 1952 CASES: A FIVE YEAR EVALUATION

A A Khan, M G Mohiuddin

Key words :

Head injury, RTA.

Summary :

In the belief that head injury is very common in Saudi Arabia due to road traffic accident (RTA) especially in young Saudi males with high rate of mortality, data about 1952 cases of head injury from January, 1978 to December, 1982 have been analysed and the following observations were made :

RTA was the commonest cause of head injury and contributed for 68.8% of cases, fall 22 8%, assault 5.8% and miscellaneous 5.6%.

Age in decades: Maximum cases were in the first decade, 32.4% cases, and contributed for 17.1% deaths.

Sex and nalionality : 82.2% male, 17.8% female ; 69.7% Saudi and 30.3% non Saudi patients.

Seasonal variation : Highest number of cases were in July (15.2%) and lowest in December (2.8%).

Management was based on clinical assessment and 146 (7.5%) cases were operated with an operative mortality of 26%.

The outcome was graded (Jennett and Bond, 1975) as 76.8% full recovery, 10.5% good recovery/moderate disability, 2% severe disability, 0.1% vegetative survival and 10.6% deaths. Of the total deaths RTA accounted for 82.8%, fall 9.5%, assault 3%and miscellaneous 4.7%.

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Introduction :

The editors of Folia Traumatologica (1971) stated," .....The annual death toll on the world's road is thought to be approaching a quarter of a million, while the number of injured is many times as great..... In industrialized countries traffic accident now rank as the commonest cause of death among those in their teens and early twenties". It has been stated that in Britain head injury accounted for one percent of all deaths, a quarter of trauma deaths, and almost half of those caused by road accidents. The proportion of deaths that are ascribed to head injury was much higher in young males.

About 10 years ago when we started to work and look after the cases of head injury in King Faisal Hospital, Taif, Saudi

Arabia, we observed that there were large numbers of cases due to Road Traffic Accident (RTA) especially in young males with high mortality. At the same time we noted that due to strict law of imprisonment for offence, the number of head injuries due to assaults was low. To look into the matter in some detail we started to collect data about head injury with a view (a) to determine the magnitude of the problem, (b) to suggest means for minimising RTA and non RTA head injuries and (c) to evolve an appropriate modality of treatment with available facilities hoping that these will reflect the magnitude of the problem in that country.

Materials and Methods :

This study was carried out from January 1978 to December 1982. A prospective protocol of data about head injury, consisting of cause, age in decades, sex and nationality, seasonal variation, management and outcome were made.

Selection of Cases :

(I) Clinical—Any case with concussion, dizziness, headache, blurred vision, vomiting or neurological signs.

(II) Radiological—Cases with fracture skull.

All cases after admission were evaluated for general condition, associated injuries and neurological state. The skull x-rays were taken as soon possible. The management was based on clinical assessment (except for x-rays of the skull). The outcome was graded during discharge from the hospital adding one category to the categories of Jennett and Bond (1975). As there were many young drivers in their teens and twenties, especial emphasis was given for the patients between ages of 15 to 30 years. Then the data were tabulated and analysed.

Causes of head injury (Table—I) :

The causes were classified as documented in the admission sheets by the resident medical officers.

Table—I

Causes of head injury

	No. of cases	%
RTA	1294	68.8
Fall	441	22.8
Assault	110	5.8
Miscellaneous	107	5.6
Total	1952	100

Age in decades (Figure 1) :

The age range was from neonatal period to 95 years with an average age of about 24 years.

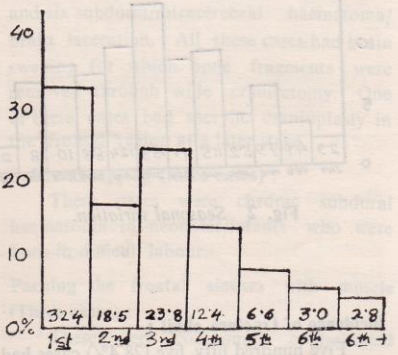

Fig. 1 *Age in decades*

Sex and nationality (Table—II) :

Preponderant cases were Saudi males.

Table—II

Sex and nationality of the patients.

Sex	No. of cases	%	Nationality	No. of cases	%
Male	1606	82.2	Saudi	1361	69.7
Female	346	17.8	Non Saudi	591	30.3
Total	1952	100		1252	100

Seasonal variation (Figure 2) :

The number of head injuries increased during the summer and decreased considerably during the winter.

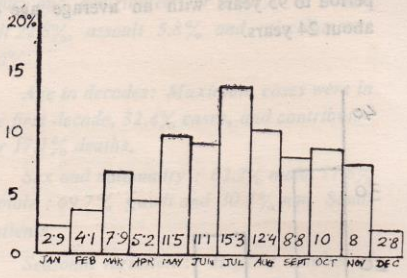

Fig. 2 *Seasonal variation.*

Incidence of fracture skull :

Five hundred fifty five (28.4%) cases had fracture of the skull.

Management (Table—III) :

One thousand eight handred and six (92.5%) cases were managed conservatively and 146 (7.5%) were operated upon. All cases after admission had

Table—III

Management done

Management	No. of cases	%
Conservative	1806	92.5
Operative	146	7.5
Total	1952	100

(i) history about the accident and any preexisting disease;

(ii) physical examination for (a) general condition, (b) assessment of injuries from head to foot and (c) neurological state viz, level of consciousness and lateralizing signs to have a base line. Then sequential examinations were made to know the direction of the patient's progress.

Conservative management :

(i) Routine observation to detect complications early.

(ii) Dehydration therapy by using steroids and rarely mannitol whichever was thought appropriate.

(iii) Comatose cases were managed by clearing airways by posture, suction, inserting oral airways and occasionally by endotracheal intubation.

(iv) Other measures included were appropriate nursing and physiotherapy. adequate fluids and nutritions.

Operative management :

Indications of operations :

(a) Immediate operation :

(i) All compound depressed fractures and simple depressed fractures having lateralizing signs.

(ii) Cases with lateralizing signs and those suspected to have haematoma.

(iii) Some of the comatose cases admitted late after trauma.

(b) Other cases were operated when there was :

(i) Deterioration of level of consciousness.

(ii) Appearance of fresh lateralizing signs.

(iii) Persistent headache, vomiting and bradycardia.

Types of operations done (Table-IV) :

Operative procedures and findings :

Exploratory burr holes (60 cases :

In absence of diagnostic aids exploratory burr holes were made in these cases to exclude intracranial haematoma. But on exploration there was no haematoma or brain swelling of any significance.

Elevation/removal of depressed fragments of bone (49 cases) :

There were six cases of simple depressed fracture. In these six cases and in 18 cases of compound depressed fractures the bone fragments were elevated and retained. In the remainder the bone fragments were removed due to operation being done late and the wounds were dirty or infected. In 23 cases the dura was torn. The dura was repaired by direct suture in seven cases. In ten cases the dura was repaired by a patch of periosteum, temporal fascia, galea or fascia lata (two cases).

There were extradural haematomas in two cases and subdural/intracerebral haematomas in four cases.

Subtemporal decompression (20 cases) :

Ten cases were operated due to deterioration of level of consciousness. The remaining 10 cases had deterioration of consciousness as well as appearance of fresh lateralizing signs. These cases were explored through burr holes in the temporal region. There was extradural haematoma in seven cases and subdural/intracerebral haematoma in 10 cases. The subdural haematomas were associated with brain swelling. In these cases burr holes were then enlarged either to let out the haematomas or to decompress the brain. In 12 cases the dura was opened.

Craniectomy (eight cases) :

All these cases had comminuted fracture (simple/compound) with two extradural and six subdural/intracerebral haematoma/brain laceration. All these cases had brain swelling for which bone fragments were removed through wide craniectomy. One of these cases had sacrylic cranioplasty in the frontal region at a later stage.

Subdural tapping (three cases) :

These cases were chronic subdural haematoma in neonates/infants who were born in difficult labour.

Packing the frontal sinuses with muscle (Three cases) :

These were compound comminuted frontal fracture with torn dura. The frontal sinuses were exenterated and packed

with pieces of temporalis muscle. Post-operatively besides antibiotic and sulpha, they had therapeutic lumber puncture. All three cases recovered.

Intracranial haematoma (Operated cases) :

In this category there were 34 cases (23%). Of these 11 were extradural and 23 subdural/intracerebral haematomas.

Operative mortality ;

Thirty eight cases died after operation with an operative mortality of 26%.

Mortality (Table VI) :

Majority of the mortality cases (82.8%) were due to RTA.

Table—IV

Types of operation done

(i)	Exploratory burr holes	60
(ii)	Elevation of depressed fracture	24
(iii)	Removal of depressed fragments of bone	25
(iv)	Subtemporal decompression	20
	Unilateral— 4	
	Bilateral —16	
(v)	Temporal craniectomy	4
(vi)	Frontal craniectomy	4
	Unilateral—2	
	Bilateral —2	
(vii)	Subdural tapping	3
(viii)	Removal of temporal bullet	1
(ix)	Debridement	1
(x)	Debridement and packing the frontal sinus with temporalis muscle ...	3
(xi)	Sequestrectomy/removal of infected bone fragment	1
	Total	146

Outcome (Table V) :

76.8% cases recovered fully and was discharged within 48 to 72 hours of admission. 10.5% cases made good recovery or left with moderate disability. Two percent cases were severely disabled and 0.1% cases were left with vegetative state. The mortality was 10.6%.

Young Patients between 15 and 30 years :

There were 709 cases (36.2% of total) in this age group. Of these 486 cases (68.5%) were Saudi. There were 86 deaths constituting 35.2% of total deaths. Again in this particular age group there were 551 cases (28.2% of total) of RTA with 75 deaths (34.7% of total deaths).

Table—V

Outcome of the head injury

	No. of cases	%
(i) Full recovery	1492	76.8
(ii) Good recovery (resumption of normal life with minor neurological and psychological deficits)	203	10.5
(iii) Moderate disability (Disabled but independent) ...		
(iv) Severe disability (Conscious but disabled) ...	38	2.0
(v) Persistent vegetative state (Unresponsive and speechless for weeks or months until death after acute brain damage) ...	3	1.0
(vi) Death	216	10.6
Total	1952	100

Table—VI

Cause of head injury of the patients who died

	No. of cases	%
RTA	179	82.8
Fall	21	9.5
Assault	6	3.0
Miscellaneous	10	4.7
Total	216	100

Discussion :

In a one year period during December, 1977 to November, 1978 total number of trauma treated in King Faisal Hospital, Taif was 6056. Of these 455 (8%) were head injury cases. Death rate among the head injury cases was about 12%. These figures underscore the magnitude of the problem in one city alone of Saudi Arabia. Overall magnitude of the problem for the whole of Saudi Arabia can be surmised to some extent from these data.

Persistently high accident rate with head injury in children and young adults is a cause for concern. To formulate a policy of prevention we need to know more about the causes and the prodisposing factors. In this study decade wise maximum cases (32.4%) were in the first decade with majority below the age of five years mostly due to fall at home. This group contributed for 17.1% of deaths. This figure illustrates the hazards that exist at home for children and these could be reduced by increasing aware-

ness on the parts of the parents and more effective protection of stairs and windows (Craft et al, 1972). The special group in this series between 15 and 30 years constituted 36.2% of head injuries and 35.2% of deaths. In this age group though RTA constituted 28.2% of head injuries, it however, attributed to 34.7% of total deaths, a tragic loss of life in man in their primes. Every now and then we have come across very young drivers as young as 12 or 13 years, with severe head injuries. Again greater awareness of parents and strict traffic regulation could reduce the number of accidents and deaths.

Preventive measures can operate at three stages, "forestalling the accident, minimising the injuries sustained on impact, and ensuring that the risk of subsequent brain damage, consequent to secondary events is reduced". Accident prevention requires the skill of many people but the doctor can help by drawing attention to the situations that in his experience are associated with injury. Specialists can help by informing people about complications and consequences of head trauma, so that public in general may (i) drive carefully and obey traffic regulations and (ii) use safety devices at home, in industries or even at sports. There are features of cars and of roads that should be made safer. For example, in the care there should be provision of seat belts, head gears or even padded upholstery. The roads preferably be straight having no sharp turns or undue hump. The road junctions should be easily visible with appropriate road signs.

About road accident deaths several features have been studied such as : speed limit, seat belts and protective head gear. It was noted in Britain during the period of November, 1973 to July 1975, that when the speed limit was reduced from 70 m.p.h. to 50 m.p.h. there was a significant reduction of injury rate in motor ways only to be reverted to its previous level when the speed limit was raised after oil crisis (Scott and Barton, 1976). Restriction on speed saved gasoline and more importantly life.

The value of seat belt and protective head gear has been well established beyond doubt as both of these have reduced the number of accident and mortality (BMJ, 1978 and 1979). In Saudi Arabia the use of helmet or seat belt was a rarity.

The number of head injuries in the female has been less in comparison to other countries (Strang et al, 1978). Local cultural factors with more conservative life style for Saudi females is the reason. Moreover, they are not allowed to drive. Taif is the summer capital of Saudi Arabia, naturally the population increases during the summer with a proportionate increase in the number of head injuries.

In absence of special diagnostic aids (ECHO, CT scan and angiogram) on many occasions we have done negative exploratory burr holes. The following up was poor (20 to 25%). Therefore we graded these cases during discharge from the hospital.

According to Lewing (1976) in Oxford, who reported a series of 7,000 consecutive cases of head injuries, the mortality in the first thousand cases completed in 1952 was 9% which over the succeeding years fell gradually to just under 4%. In the series reported from Cambridge since 1961, of just under 10,000 head injuries the overall mortality rate was about 3.7%. In compari-

son to those this series are small with a high mortality rate and this is we believe, has been contributed by several factors such as :

(i) large number of RTA with severe head injury and multiple injuries;

(ii) inadequate first aid and transporation to hospital;

(iii) lack of neurological team and ward;

(iv) mixed crowded wards resulting in inadequate attention to head injury cases.

It is concluded that RTA is the commonest cause of head injury in Taif. It involves mainly young Saudi males with high mortality. This probably reflects what is happening in other parts of the country.

Expansion of neurosurgical wards properly staffed with trained personnel coupled with improved first aid and prompt ambulance service is obviously an immediate need in that country. However, these are secondary measures for prevention of death and disability from head injuries.

As primary preventive measures, road traffic rules including control of speed limit, use of seat belt and proper head gears should be enforced. Finally education in general and health education in particular should receive prime attention.

Saudi Arabia is losing a big percentages of its young and useful male population due to head injury from RTA.

Recommendations :

I. Prevention of head injury.

This can be done by making people aware of causes, complications and sequelae of head injury through different media like news papers, radio and television. Whenever possible this can also be done by practical demonstration of head injury patients.

II. Actual care of the head injury victim.

This should be done as follows :

1. First aid : This is given by trained personnel or anybody available at the site of accident (i) to clear airways in comatose patients by putting the victim on his side (spinal injury to be remembered), (ii) to stop external bleeding by position, pad and pressure and (iii) to splint associated limb fractures with whatever means available at the spot.

For these measures the first aid workers and ambulance crews need practical training before hand. The public in general can be taught about these problems as has been mentioned in preventive measures.

2. Transportation to a medical centre/ hospital as soon as possible : Conscious patients can be transferred on back and the comatose cases on side with whatever facilities available at the place of accident. During transfer any change in condition of the patients like loss of consciousness in previously conscious patients, vomiting, convulsions and the amount of blood lost are to be noted.

3. Hospital : (A) Emergency room (E/R) : Once the patient arrive in the hospital the medical staff in E/R will :

(i) ensure appropriate first aid;

(ii) record vital signs with date and time;

(iii) take history about the cause and circumstances of accident, and ask about blood loss and preexisting illness;

(iv) do physical examination of the case from head to foot to assess (a) general condition, (b) extent of injury and (c) finally neurological state noting level of consciousness and lateralizing signs ;

(v) look for shock and when shock is present I.V. fluid is to be started and blood to be sent for grouping and cross matching immediately;

(vi) take x-ray of skull, anteroposterior and lateral views, cervical spine lateral view and any other x-rays thought appropriate. This will provide with a **base line** for comparison with subsequent examinations.

Admission procedure :

If the circumstances demand, the patients need assessment by the medical staff from other specialities. Then a decision is to be taken whether the patients need admission or not. If the patients do not need admission, they can be discharged with attendents after first aid. The attendents are instructed to observe the patients at home every two hours. Should there be persistent headache, vomiting, convulsion and loss of consciousness, the patients are to be brought back to the hospital immediately.

(B) Ward Observation:

In the wards all the patients should be observed carefully by trained nursing staff for general condition, vital signs and neurological state to detect complications early. A doctor must be available at a moment's notice. Majority of the cases will recover within 24 hours and will be discharged. A few will need surgery and some will be referred to rehabilitation centre.

III. Rehabilitation and resettlement.

This begins with admission of the patients in the hospital and continues through a programme till and until expected recovery is achieved in a particular case. This needs trained doctors, nurses and other paramedical staffs like physiotherapists, occupational therapists, speech therapists, medical social workers and psychologists.

Care of neurosurgical cases is a team work which needs trained and enthusiastic persons from (i) neurosurgical unit, (ii) neuroradiological and neuroanaesthetic departments, (iii) blood transfusion experts with lot of available blood, (iv) trained nurses in the ward and operation theatre and (v) other paramedical staffs.

All or any member of the above mentioned specialities should be readily available if we want to save life and to improve the quality of the survivors.

References :

1. British Medical Journal: *Road accident, seat belts and the safe care.* 2 : 1695-1698, 1978.
2. British Medical Journal: *Motorcycle and Bicycle accidents.* 1:39-41, 1979.
3. Craft A W et al : *Head injuries in children.* Br Med J, 4 : 200-203, 1972.
4. The editors : *Folia Traumatologica 1.* Ciba-Geigy Ltd. Basle (Switzerland), 1971.
5. Jennett B, Bond M R : *Assessment of outcome after severe brain damage, a practical scale.* The Lancet, 1 : 480-484, 1975.

6. Lewin W : *Changing attitude to the managements of severe head injuries.* Br Med J, 20 : 1234-1239, 1976.

7. Scott PP and Barton A J : *The effects on road accident rates of the fuel shortage of November, 1973 and consequent legislation.* Transport and road research Laboratory, Supplimentary report, 239, 1976.

8. Strang I et al : *Head injuries in accident and emergency department at Scottish Hospitals.* Injury, 10 : 154-159, 1978.

(Continued from front contents back page)

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A PROFILE OF SEPTIC ABORTION CASES IN A TEACHING HOSPITAL OF DHAKA CITY

D Tahera, A Begum

Key word :

Septic abortion.

Summary :

This study was undertaken in the Department of Obstetrics and Gynaecology, Dhaka Medical College Hospital during a period of one year from December 1985 to November 1986.

During this period 1521 different types of abortion cases were admitted. Among them 345 (22.68%) were septic abortion. Of these induced abortion cases were 86%, and 90% induction was done by unskilled persons. Infection due to E. Coli was found in 43.54% cases. Staphylococcus was responsible for 22.6% of infections. Fifty nine percent of cases had mild infection and 25% and 16% patients had moderete and severe infections respectively. Sixty percent patients needed dilatation and curettage. Fifty eight percent of patients had more than two children and 7% patients had below average socioeconomic status. Mortality rate was 10%.

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Introduction :

It is estimated that 800,000 abortions are performed in Bangladesh annually (MR News Letter, 1985) by untrained traditional practitioners. About half of the patients admitted in the obstetrics and gynaecology department of Dhaka Medical College Hospital are cases of abortion and its complications.

Most of the patients are poor, illiterate and are admitted in the hospital late often with serious complications. Most complicated cases are generally cases of induced abortion. Septic abortion appears to be a serious clinical problem in developing countries.

Materials and Methods :

This study was undertaken in the obstetrics and gynaecology department of Dhaka Medical College Hospital during a period from December 1985 to November 1986. This was a retrospective study.

Case records of all patients admitted with a diagnosis of septic abortion were analysed. From them hundred cases were selected randomly for the present study.

Dhaka Medical College Hospital is both a general and a referral hospital. Patients come from different districts of Bangladesh

for better treatment here, many patients from the city and its suburbs are also admitted directly.

A total of 5600 patients were admitted in obstetrics and gynaecology department during this period. One thousand five hundred twenty one (27.16%) were abortion cases, and of those 345 (22.68%) were cases of septic abortion. There were 90 cases of threatened abortion, 21 cases of missed abortion and 1065 cases of spontaneous abortion (incomplete/inevitable). So the proportion of abortion in relation to total admission was 27.16% of which 22.68% were cases of septic abortion. Diagnosis of septic abortion was made from history, clinical examinations and investigations. All data and informations were collected through a proforma prepared for this purpose.

Septic abortion cases were analysed as regards age, parity, reproductive and marital status, educational back ground, duration of pregnancy, nature of abortion (spontaneous or induced), methods of interference, bacteriological isolates and their sensitivity to antibiotics and cause of death.

For treatment purpose the cases were classified according to severity in three groups. The clinical grading of septic abortion cases in the present study was done in the pattern of Jones et al as qouted by Modi and Modi (1985). There were 59 cases (59%) in grade I, 25 (25%) cases in grade II and 16 (16%) cases in grade III.

Grade I patients presented with fever, foul discharge, bleeding and backache. Greade II patients had, in addition, distension of lower abdomen and pelvic peritonitis as well. Grade III patients had, in addition to above, rigor, purulent discharge, generalised peritonitis, peripheral vascular failure with other complications.

Results :

Age structure of the patients (Table—I) :

Twenty three (23%) patients were between 15 and 20 years, 43 (43%) between 20 and 30 years and 30 (30) between 30 and 40 years of age. About 73% patients were in active reproductive period.

Table-I

Age incidence of the patients

Age in years	No.	%
15—20	23	23%
21—30	43	43%
31—40	30	30%
41—above	04	04%
Total	100	100%

Parity distribution of patients (Table—II):

In our series 15% patients were nullipara, 9% had one child, 18% had two, 10% had four and 28% had five or more children.

Mode of interference in induced abortion (Table—III) :

Stick was used in 60.3% cases and 16.2% became septic after MR procedure in the present series.

Educational status (Table—IV) :

Fifty one percent patients of the present study were illiterate, 40% had primary education and 9% studied in high school.

Table—II

Parity distribution of the patients

Parity	No. of Patients	Percentage
0	15	15%
1	09	09%
2	18	18%
3	14	14%
4	16	16%
5 and more	28	28%
Total	100	100%

Table—III

Mode of Interference

Sl No.	Mode of Interference	Number of cases	Percentage
1	Stick	52	60.3%
2	M R	14	16.2%
3	D & C	03	03.8%
4	Others	17	19.7%
Total		86	100%

Table—IV

Educational status of the patients

Level of literacy	Number of patients	Percentage
Illiterate	51	51%
Primary school	40	40%
High school	09	09%

Profile of infective pathogens (Table—V) :

E. Coli was responsible for 43.54% cases, Staphylococcus 22.6%, Pseudomonous 1935% and Proteus 8.06% cases.

Table—V

Bacteria responsible for infection

Sl No.	Organism	No. of cases	Percentage
1	E. Coli	27	43 54%
2	Staphylococcus	14	22.61%
3	Pseudomonus	12	19.35%
4	Proteus	05	8 06%
5	Klebsiella	02	3 22%
6	Coliform	02	3.22%
Total		62	100.0%

Antibiotic sensitivity pattern of the isolates (Table—VI) :

Ten patients died in this study. All of them were in Grade III when admitted, two patients (20%) died due to haemorrhagic shock, two (20%) died due to generalised peritonitis with electrolyte imbalance and shock, three (30) due to septicaemic shock, one (10%) due to tetanus, one (10%) due to renal failure and one (10%) due to septic abortion with bleeding disorder.

Discussion :

In this study 345 (22.68%) were of septic abortion, among them 86% were induced abortion and 90% induction was done by

Table—VI

Antibiotic sensitivity

Sl No.	Nature of isolate	Genta-mycin	Ampi-ciliin	Tetra-cycline	Peni-cillin	Strepto-mycin	Negram	Furadan-tin	Cotrim-oxazol
1	E. Coli	92%	50%	40%	15%	56%	80%	56%	15%
2	Staphylococcus	85%	46%	35%	20%	20%	60%	20%	10%
3	Paeudomonus	87%	40%	—	—	40%	45%	—	11%
4	Proteus	69%	39%	8%	10%	—	30%	—	—
5	Klebsiella	52%	10%	15%	15%	20%	25%	20%	8%

Table—VII

Cause of death of patients

Cause	No. of Pt.	Percentage
1. Haemorrhagic shock	2	20%
2. Septic shock	3	30%
3. Generalized peritonitis with electrolyte imbalance with shock	2	20%
4. Tetanus	1	10%
5. Renal failure	1	10%
6. Septic abortion with bleeding disorder	1	10%

unskilled persons. Adetoro (1986) reported that induced septic abortion composed 5% of all gynaecological emergency admissions in Ilorine in contrast to 23% reported else where. In developing countries the cost of treatment of abortion complications accounts for upto 50% of the budget of a maternity hospital (Population Rep., 1980). Haemorrhage appears to be a frequent complication in these cases who are often multiparous and anaemic. They require significant transfusion of blood. In African and Latin American Hospitals three to 41% of total blood transfusion was used for such cases (Population Rep., 1980).

A study by WHO in Turkey and Venezuela revealed that 49% of the cost of treating illegal abortions was the cost of transfusion (Population Rep., 1980).

E Coli was the most frequent bacteria in most of the cases in our series as found in the series of Adetoro (1986) and Modi and Modi (1985).

In one study in India it was found that 20.2% were below the age of 20 years of whom 90% were unmarried (Janki et al, 1978). In Nigeria Adetoro (1986) showed in his series that the age of 60.7% patients were between 11 and 19 years with a mean of 15.5 years and most were unmarried school going girls. He showed that 77.5%

patients were nullipara, unmarried and school going girls.

In an Indian study (Modi and Modi, 1985) stick was found to procure abortion in 58.33% cases.

In the doveloped countries 77.5% (Modi and Modi, 1985 ; Adetoro, 1986) cases were among school going children.

In Modi and Modi's (1985) series most cases were infected by E. Coli followed by Pseudomonous and Staph. aureus. In Adetoro's (1986) series mixed enterococci and E. Coli were the most frequent organism.

In a series from India, maximum sensitivity, was found with Gentamycin, followed by Ampicillin (Modi and Modi, 1986). In Nigerian series, organisms were mostly sensitive to Gentamycin, Cefoxitin, Metronidazole and Chloramphenicol in that order (Adetoro, 1986).

In Latin America over 30% of maternal deaths are due to complications related to abortion. In Chile rate of abortion deaths in national health service hospital from 1963 to 1973 ranged from 30 to 41%. In Colombia septic abortion caused 40% of all maternal deaths in the maternal and child health institute in Bogota between 1970 and 1978 (Population Rep., 1980.)

In Asian and African hospitals abortion is responsible for 4 to 51% of all maternal deaths. In Bangladesh, Nigeria, Sierra Leone, mortality rates were between 12.5 to 119.4 per 1000 admissions for septic abortion (Population Rep., 1980).

The Johns Hopkin's University USA, made a survey programne on septic abortion in many developing countries. They also confirmed that E Coli was the most frequent causative organism. Possible explanation may be, it is an ascending type of infection and gastrointestinal tract is close to genital tract. E. Coli, the normal flora of GIT, makes its way easy to infect during abortion (Population Rep., 1980).

Morbidity and mortality of septic abortion can be easily prevented. This may be achieved by giving education on family planning and health to the mothers. It is equally important to provide necessary training to the persons involved in dealing with such cases and better facilities at the community levels.

References :

1. Adetoro OO: *Septic induced abortion at Ilora, Nigeria.* Asia Oceania J Obst and Gynae, 12 (2), 1986.
2. Janki P et al: *Observation on 72 cases of septic abortion.* J Obst & Gynae India, 28 : (2) 229, 1978.
3. Modi S and Modi V K. *Profile of septic abortion with special reference to genito-urinary flora.* Indian Medical Gazette, Nov., 1985.
4. M R News letter: B A P S A, 1 (May), 1985.
5. Prevention of infection after abortion with a supervised single dose of oral doxycycline. Br M J, 281 (20) : 780, 1980.
6. The Johns Hopkins University, Hampton House, 624 North Broadway, Baltimore, Maryland 21205, USA: *Population Information Program. Complications of abortion in developing countries,* Population Rep., Series F, No-7, July, 1980.

DIFFICULT CHOLECYSTECTOMY–A REVIEW OF 156 CASES

Rashid-e-Mahbub

Key Words :

Cholecystectomy.

Summary :

This is a review of 156 patients undergoing cholecystectomy with a view to analysing the difficulties encountered. More difficulties were encountered in radilogically non-visualized gall bladder than in patients with radiologically visualized gall bladder pathology (51% versus 15%). Difficulties encountered were bleeding at operation (78 patients) and leakage of bile (14 patients). Duodenal injury occured in two patients and bile duct injury occured in nine subjects. Two patients had inoperable gall bladder carcinoma. There was one death. This study highlights the difficulties that can occur doing gall bladder surgery at a Medical College Hospital and indicates that radiological non-visualization may select more difficult cases.

Introduction :

Cholecystectomy is being done for over a hundred years. There is an increase in the number of operations for gall stones in many countries (Squill et al, 1983). Accurate pre-operative diagnosis by modern investigative methods, better antibiotics, improved anaesthetic techniques and safer surgery have decreased the mortality (McSherry, 1981; Blamey et al, 1983; Vellacot and Powel, 1979; McSherry and Beumgart, 1982).

In Bangladesh, gall bladder surgery is now performed even in some district hospitals where there is a qualified surgeon. This study is a retrospective analysis of 156 cholecystectomies undertrken in a medical college hospital. It was hoped that this study will highlight the difficulties that may be encountered in cholecystectomies undertaken in general hospital and will thus be a guide to surgeons undertaking this procedure in such hospitals.

Materials and Methods :

Data on 156 consecutive patients who underwent surgery for gall bladder disease from 1982 to 1986 at Medical College Hospital, Barisal have been retrospectively analysed. These were from a single surgeon's record. All cases were admitted for elective surgery. Patients with acute cholecystitis were conservatively managed first and re-admitted for elective surgery later on.

The diagnosis was made from the history, physical examination and investigations. There were more females (n=88) than males (n=68) (ratio F:M 1·2:1). The mean age of the patients was 35±15 years. Of the patients

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97 were urban inhabitants (63%) and 59 were villagers (37%). Oral cholecystography (O C G) was performed in all the patients. Sixty patients (38%) had radiologically visualized gall bladder with pathology (RVGP) and 96 (62%) had radiologically non-visualized gall bladder (RNVG) (Table-I and II). Two patients had false positive results after O C G, diagnosed at laparotomy. One visible gall bladder with stone and one non-visualized gall bladder was found to be normal. Ultrasonography was not available at the place of study.

Table—I

Shows the distribution of female patients among urban and village inhabitants in the RVGP and RNVG groups

	RVGP	RNVG
Urban dwellers	16	41
Village dwellers	9	22
Total	25	63

Table—II

Shows the distribution of male patients among urban and village inhabitants in the RVGP and RNVG group

	RVGP	RNVG
Urban dwellers	23	17
Village dwellers	12	16
Total	35	33

Of the 156 patients, 152 underwent cholecystectomy. Two cases were found to be inoperable. Histopathological study showed these two were carcinomas of the gall bladder. Two more patients had normal gall bladder at laparotomy. There was no diathermy facility available during operation.

Results :

Cholecystectomy in RVGP group was simple in 38 patients and difficult in 22 patients. There was bleeding in 15 patients, bile leakage in four patients and three patients needed exploration of the common bile duct (Table-III). In the RNVG group the operation was simple in only 16 patients and in 80 patients it was difficult. The difficulties were bleeding at operation in 63 patients, bile leaking in 13 and duodenal injury in two patients. Some of the cases of bleeding required transfusion. One patient is this group died.

Table—III

Shows difficulties encountered during operation in RVGP and RNVG groups

Difficulty	RVGP %	RNVG %
Bleeding at surgery	15(10)	63(41)
Leakage of bile	4(3)	10(7)
Bile duct injury	Nil	9(6)
Bile duct exploration	3(2)	13(8)
Duodenal injury	Nil	2(1.2)
Inoperability	Nil	2(1.2)
False diagnosis	1(0.6)	1(0.6)
Deaths	Nil	1(0.6)

Discussion :

Gall bladder surgery was easy in 24% of the RVGP group as compared to 10% in

the RNVG group. Difficulties were 15% in the RVGP group and 51% in RNVG group. The difficulties were due to adhesions, empyema and fistula. The incidence of these were more in the RNVG group. The major problem encountered was bleeding during operation. It was 10% in the RVGP group and 40% in the RNVG group. Leaking of bile occured in a small proportion of patients in both groups. No bile duct injury occured in the RVGP group but this happened in 6% of the RNVG group. Bile duct exploration was also needed in a higher proportion of cases in the RNVG group (8%) than in the RVGP group (2%). Other difficulties such as duodenal injury, false diagnosis and inoperability occured in a very small number of patients and no significant differences between the two groups could be seen.

This study indicates that cholecystectomy may be more difficult in the patient with radiologically non-visualized gall bladder. This finding needs to be confirmed by further studies. This study also demonstrates the difficulties likely to be encountered by surgeons working in general hospitals and performing cholecystectomies with limited facilities. Oral cholecystography will help to select cases with non-visualized gall bladder and in this group of subjects difficulties may be anticipated and more care taken during operation.

Acknowledgement :

I thank all doctors who worked with me in Barisal Medical College and Dr. Alok Kumar Saha of Rangpur Medical College.

References :

1. Blamey SL, Fearon KCH, Gilmour WH, Osbourne DH, and Carter DC: *Prediction of risk in biliary surgery.* Br J Surg, 70 : 535-8, 1983.
2. Mcsherry CK (Ed) : *The national cooperative gall stone study report: a surgeon's perspective.* Ann Int Med, 95 : 379-80, 1981.
3. Mcsherry CK, Beumgart LH: Clinical Surgery International. The bilary tract Churchill Livingstone, London, pp 140, 1982.
4. Squill DS, Devlin HB, Plant JA et al: *Surgical operation rates: a twelve year experience in Stockton-on-Tees.* Ann Roy Coll Surg Engl, 65 ; 248-53, 1983.
4. Vellacott KD, Powell PH: *Exploration of the common bile duct: a comparative study.* Br J Surg, 66 : 389-91, 1979.

PRIMARY GASTRIC LYMPHOMA IN A YOUNG MAN–A CASE REPORT AND REVIEW OF LITERATURE

M A Faiz[1], K K Das[1], G C Biswas[2], S Rahman[3], M Tahir[4]

Introduction :

Gastric lymphoma has been generally considered an unusual form of gastric neoplasm (Sander, 1984). In the past gastric lymphoma comprised 1-4% of stomach malignancies (Loehr et al, 1969) but recent studies indicate a higher incidence (8-11.5%) of lymphoma among gastric malignancies (Russo et al, 1978 ; Rilke et al, 1978). Because of low frequency, most large institutions see only two to eight cases per year in western countries (Novak et al, 1979) Few cases of gastric lymphoma are described in Bangladesh (Rabbi et al, 1986 ; Roy et al 1987) in elderly people. We report here a case of gastric lymphoma in a young male of 17 years.

Case Note :

Mr. W.H., a 17 year old student, resident of an orphanage was admitted in medical unit of IPGMR on 19-2-89 with history of feeling a painless mass in right upper abdomen for one month which was gradually increasing in size, not associated with fever, jaundice or alteration of bowel habit. He had mild anorexia and feeling of fullness of abdomen after meal. During hospitalization there was pallor, weight loss and rapid enlargement of lump within two weeks, associated with pain in the lump.

Physical examination : He was moderately anaemic and had no icterus, clubbing, koilonychia, lymphadenopathy or bone tenderness. His pulse was 80 per minute, B P 120/75mm Hg and temp. 98°F. Liver and spleen were not palpable and kidneys were not ballotable. A mass was felt in epigastrium and right hypochondrium measuring 17.0×10.0 cm. upper limit of which could not be felt under the costal margin. It was moving with respiration and had smooth surface and round margin. It was non tender and no bruit was heard. There was no ascites.

Other systemic examination revealed no abnormality.

Investigations and Management : His blood count on admission showed Hb 65%, TC of WBC 6000/cmm of blood with poly 75%, lympho 22%, mono 4%, eosinophil 2% and ESR 32 mm in 1st hour.

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5. Md. Tahir, Professor, Department of Medicine Institute of Post Graduate Medicine and Research, Dhaka.

Urine and stool routine examination showed no abnormality ; chest X-ray was normal; ultrasonography and isotope scanning of liver showed mild enlargement of liver with uniform radiocolloid concentration; palpable mass was solid, echogenically irregular and appeard to be seperate from liver; gall bladder was pushed up by the mass; both kidneys were normal. Casoni's test and CFT for echinococcus granulosus was negative.

Upper G I endoscopy showed a normal oesophagus, stomach-antrum showed mucosal irregularity with ulceration, lumen was narrowed and scope could not be passed. Endoscopic biopsy revealed accumulation of chronic inflammatory cells. Barium meal X-ray of stomach and duodenum showed multiple irregular filling defects in greater curvature and antrum with narrowing of the lumen. Duodenal 'C' loop was wider with evidence of mucosal destruction at the third part of the duodenum.

Laparotomy was done on 29-3-89. The huge tumour tissue was adherent to the abdominal wall. It was irregular, firm, friable and easily bled. A small tissue from tumour was taken for histopathology. The whole stomach was involved. Part of the tumor was removed by curettage. The anterior stomach wall was sloughed out with tumour. The bleeding vessels were ligated and stomach wall was sutured. Post-operatively he was managed with fluid, Ampicillin, Cloxacillin, Metronidazole and blood transfusion. He developed pyrexia with tachypnoea. Left sided pleural effusion was developed. 700cc of haemorrhagic fluid was aspirated. Sugar content of the fluid was 5.8 mmol/L and protein 2.6 gm%. There was plenty RBC, no AFB or other organism was found and no malignant cell couid be detected. Histopathology of stomach biopsy showed diffuse malignant lymphoma. The cells were blastic in type, and the histopathological diagnosis was malignant lymphoma, diffuse (high grade). Chemotherapy with Cyclophosphamide (600mg), Vincristine (2 mg) and prednisolone (60 mg/d) was started. The patient developed pyrexia on the fifth day of therapy. Blood count showed total count of WBC 1500/cmm with poly 60%, lympho 32%, eosino 4% and mono 2%. Parentral Gentamicin was started. The patient expired on the seventh day of therapy.

Discussion :

The patient was relatively younger (17 years) as campared to average age noted in most of the studies (55 to 60 yrs) (Loehr et al, 1969; Rabbi et al 1986; Dworkin et al, 1982 ; Naqvi et al, 1969). However, Boring et al (1985) found increased incidence of non-Hodgkins lymphoma in young men during the acquired immunodeficiency syndrome epidemic in 1981-1982 though only two out of 33 patients were thought to be AIDS related lymphomas.

Clinical features in this patient like lump, anorexia, weight loss, abdominal pain do not differ significantly from other gastrointestinal tract malignancies. Similar findings, were noted by other authors (Dworkin, 1982 ; Hockey et al, 1987). Abdominal pain which is the most frequent (Hockey et al, 1987) manifestation (75-90%) was initially absent in this patient. Other less frequent symptoms of abdominal lym-

phoma are nausea, vomiting, haematemesis and perforation (Hockey et al, 1987).

Radiographic and endoscopic findings were confused with carcinoma of stomach in this patient as it happened to Mittal et al (1983), and Hertzer et al (1976). Radiological criteria that would help to establish the diagnosis of gastric lymphoma are (i) diffuse mucosal hypertrophy with irregular thickening of folds, (ii) multiple ulcerations, (iii) single ulcer with diffuse mucosal thickening, (iv) a mass lesion or a mucosal irregularity extending across the pylorus to the duodenum and (v) lesions that are larger than 15 cm (Sander, 1984 ; Menuck, 1976 ; Craig add Gregson, 1981).

Endoscopic criteria that are thought to be more suggestive of lymphoma are multiple ulcers with generally irregular or map like shape and the presence at the border of thickened and elevated mucosa forming large folds (Russo et al, 1978). The success rate for diagnosing gastric lymphoma by endoscopic biopsy was also low in the study done by Rabbi et al (1986), Connors and Wise (1974) and Fleming et al (1982). On the other hand Roy et al (1987), Shiu et al (1982) and Fiol and Vilardell (1978) were very successful in diagnosing gastric lymphoma by endoscopically directed biopsy/cytology. These differences in the accuracy could be due to the difference in sample collection techniques.

Gastric lymphomas arise from lymphoid tissue in the lamina propria and extend laterally along the submucosal layer (Russo et al, 1978). The muscular layer is generally spared until late in the disease (Green et al, 1979). Because the mucosa is not involved primarily, it may be difficult to make a histological diagnosis from endoscopic mucosal biopsies. There may be diffuse infiltration resulting in rigidity and a linitis plastica appearance (Sander, 1984).

Diagnosis of gastric lymphoma has been difficult to establish before exploration in this patient in consonance with other authors (Rabbi et al, 1986 ; Salema, 1968) This patient had unresectable growth and we did laparatomy with biopsy only, histology of which confirmed the diagnosis.

The patient received COP chemotherapy regimen (cyclophosphamide, vincristine, prednisolone). Probably the death in the case is due to septicaemia during episode of agranulocytosis.

Overall 5-year survival from lymphoma is better than that from carcinomas. Penetration of lymphoma beyond the serosa is associated with significantly decreased survival (Sander, 1984). The treatment of gastric lymphoma is mainly surgical if the lesion is resectable. Importance of surgical exploration is to establish the extent of the disease and to plan therapy (Fleming et al, 1982).

The role of radiation therapy and chemotherapy as primary or palliative treatment is controversial (Sander, 1984 ; Bedikian, 1980). However, irradiation has proved to be effective in providing palliation and even long-term survival in advanced unresectable gastric lymphoma. Similarly, chemotherapy has an established role in the management of advanced gastric lymphoma (Mittal et al, 1983).

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References :

1. Bedikian AY, Khankhanian N, Heilbrunck LK et al: *Primary lymphomas and sarcomas of the stomach.* South Med J, 73 : 21-4, 1980.
2. Boring CC, Brynes RK, Chan WC et al: *Increase in high grade lymphomas in young men.* Lancet, 857-9, 1985.
3. Connors J, Wise L: *Management of Gastric Lymphoma.* Ann J Surg, 127 : 102-8, 1974.
4. Craig O, Gregson R: *Primary Lymphoma of the Gastrointestinal tract.* Clin Radiol, 32 : 62-72, 1981.
5. Dworkin B, Lightdale CJ, Weingrad DN et al: *Primary gastric lymphoma—A review of 50 cases.* Digestive Diseases Sciences, 27 (11) : 986-92, 1982.
6. Fiol VC, Vilardell F: *Progress in the cytological diagnosis of gastric lymphoma.* Cancer, 41 : 1456-61, 1978.
7. Fleming ID, Mitchell S, Dilawari RJ: *The role of surgery in the Management of gastric lymphoma.* Cancer, 49 : 1135-41, 1982.
8. Green JA, Dawson AA, Jones PF et al: *The presentation of Gastrointestinal lymphoma: study of a population.* Br J Surg, 60 : 798-801, 1979.
9. Hertzer NR, Noerr SO: *An interpretive review of Lymphoma of the Stomach.* Surgery Gyecology and Obstetrics, 143 : 143-24, 1976.
10. Hockey MS, Powell J, Crocker J et al: *Primary gastric lymphoma.* Br J Surg, 74 : 483-7, 1987.
11. Loehr WS, Mujahed Z, Zahn FD et al: *Primary Lymphoma of the gastrointestinal tract: A review of 104 Cases.* Ann Surg, 170 : 232-8, 1969.
12. Menuck LS: *Gastric Lymphoma—a radiologic diagnosis.* Gastrointest Radiol, 1 : 157-61, 1976.
13. Mittal B, Wasserman TH, Griffith RC: *Non-Hodgkin's Lymphoma of the Stomach.* Am J Gastroenterol, 78 (12) : 780-87, 1983.
14. Naqvi MS, Burrows L, Kark AE: *Lymphoma of the Gastrointestinal tract: Prognostic guide based on 162 cases.* Ann Surg, 170 : 221-31, 1969.
15. Novak S, Caravoe J, Trowbridge AA, Peterson RF, White RR III: *Primary lymphomas of the Gastrointestinal tract.* South Med J, 72 : 1154-8, 1979.
16. Rabbi ANMA, Hassan M, Matin ASMR, Nasar TA, Azam HE: *Abdominal presentation of Lymphoma : A clinicopathological study of 19 cases.* J Bang Col Phys Surg, 3 (2) : 1-9, 1986.
17. Rilke F, Pilotti S, Clemente C: *Cytology of non-Hodgkin's lymphomas involving the stomach.* Acta Cytol, 22 : 71-9, 1978.
18. Roy PK, Chowdhury SGM, Alam MN: *Lymphomas of the gastrointestinal tract.* Hygeia, 2 (4) : 114-7, 1987.

19. Russo A, Grasso G, San Filippo G et al: *Gastroscopy and directed biopsy in the diagnosis of Primary Gastric lymphomas: report of 16 personal case.* Tumori, 94: 419-27, 1978.

20. Salema H: *Lymphoma of the Stomach: a clinical study of 39 cases.* Acta chir Scand, 3 : 249-53, 1968.

21. Sander R S: *Primary Gastric Lymphoma: A review.* Am J Gastroenterol, 79 (1) : 21-25, 1984

22. Shiu MH, Karas M, Nisce L et al: *Management of primary gastric lymphoma.* Ann Surg, 195 : 196-202, 1982.

SPONTANEOUS EXTERNAL BILIARY FISTULA– AN ATYPICAL CASE REPORT

D E R Chowdhury, H Ahmed, M R Chowdhury

Key Words :

Cholelithiasis, External fistula.

Summary :

A rare case of spontaneous external biliary fistula, non surgical and non traumatic in origin, is presented. It is a rare complication of cholelithiasis. Shart presentation, investigations and management is described.

Case Report :

Mrs. H. Bala, 50 years, mother of ten children and wife of a grocer shop owner of rural area came with few stones in her fist and a discharging sinus in her right lower chest for last three months without pain in local area.

She depicted the story that she had occasional upper abdominal pain for last ten years and was on antacid almost regularly. But this time about 10 weeks back, she had severe upper abdominal pain sssociated with vomiting and fever. Within five to six days time a swelling developed on the right lower anterior chest, burst spontaneously discharging thick yellow pus and stone like material (six in number). Her attending doctor advised her to go to Medical College Hospital, but being afraid of operation she started traditional method of treatment and continued for last two months. During this period two stones came out through this opening on two occasions. By the last episode she became afraid that it may be an endless pracess and turned up for curative treatment.

She was admitted in Sylhet Medical College Hospital. The general condition of the patient was good. On physical examination no abnormality was found in any of the systems. Local examination revealed a discharging point circumscribed by sprouting granulation tissue with adjoining puckered skin, situated in eighth intercostal space, 3 cm above the costal arch, 2 cm medial to midclavicular line on the right side (Figure-1).

The stones she brought were small, variable in size, shape and colour. They were multifaceted and were eight in number. All were mixed gallstones.

Oral cholecystography, combined with intravenous cholescytography was done which showed a non-functioning gall bladder.

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Fig—1. *Fistula showed with pointer and stones in hand*

Ultrasonography of the gall bladder suggested cholelithiasis. Fistulogram was tried but failed because contrast media could not be introduced due to obstruction inside. An attempt to pass a small paediatric ryles tube also failed.

Other investigations like blood count, Hb%, blood urea, all possible liver function tests, X-ray chest and plain X-ray of the abdomen was done and revealed no abnormality.

Laparotomy under general anaesthesia by right upper paramedian incision was done. Survey revealed greater omentum was adherent with inferior surface of the liver and gall bladder area and anterosuperior surface of right lobe of liver was adherent with anterior abdominal wall underneath the costal arch. Omentum was separated, gall bladder was buried in liver, fundus protruding through anterior surface of the liver which was continuous with the fistula. A probe was passed but was obstructed by a stone in the track. The neck of the gall bladder contained a big stone. Common bile duct was free from obstruction and not dilated.

Cholecystectomy was done and the gall bladder fossa approximated. Gall bladder was thick, fibrosed, whitish, containing few more stones and continuous with fistula. Excision of the whole track upto exterior was done. The fistulous opening was repaired. Other organs were examined and found within normal limit. Abdomen was closed in layers keeping a drain in

subhepatic space. The recovery of the patient was uneventful. She was discharged on forteenth post operative day. Her gall bladder histopathology report showed chronic cholecystitis.

Discussion :

The spontaneous external biliary fistula with stones discharging through it is very rare. Internal biliary fistula with gall stone ileus is more common in occurence than the external one. There are many publications on internal biliary fistula and fistula with gall stone ileus in the world literature (Pangan et al, 1984). About one to 3% cases of intestinal obstruction are caused by gall stones and this percentage increases with the age of the patient and in 60 to 70 years it is upto 15% (Brockis et al, 1957; Pangan et al, 1984).

There are mention about external biliary fistula in many text books and most common causes are surgical operations or penetrating injury (Bailey and Love, 1988).

Considering the present case finding we can account the following factors for spontaneous external biliary fistula formation. The first probability is the anatomical peculiarity that is the gall bladder body was buried in liver except the neck and fundus. The fundus was protruding through the anterior surface of the liver and in close relation with inner aspect of the costal arch. The second consideration is that the cystic duct was compressed by a big stone in Hartmann pouch, causing obstruction to outflow of gall bladder content. The third consideration is that the infective process was very virulent causing gangrene of the fundus and involved the anterior abdominal wall. The swab culture showed mixed organisms. The patient's description about drained out material simulate thick pus. So we can consider this as a case of empyema gall bladder. The last and vital consideration is that, on the inferior surface of the liver the neck of the gall bladder was adherent with protective greater omentum which probably limited the spread of infection on this side. Therefore the pent up pus with stone found no other way but to push through the weak fundic region and finally caused the fistula.

Three types of pathology are described, the acute perforation communicating directly with abdominal cavity, the subacute perforation communicating with a abscess cavity localized by protective adhesions and the chronic perforation causing the internal or externel fistula formation. Perforation generally occurs in the fundus of the gall bladder and are usually associated with anatomical abnormality (Davies et al, 1985; Zwaveling et al, 1967). Estimation of the incidence differ probably due to the fact that some surgeons operate at an early stage of cholecystitis while others wait longer for which it may lead to perforation. The acute perforations occur within 72 hours of the onset.

Finally we would like to draw a conclusion that such fistula formation is associated with some anatomical variations.

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References :

1. Bailey and Love : Short Parctice of Surgery. H K Lewis and Co Ltd. London, 20th ed, pp 979, 1988.
2. Brockis J G et al: *Intestinal obstruction by gall stones. A review of 179 cases.* Br J Surg, 44 : 461-466, 1957.
3. Davies C L et al: *Spontaneous Cholecysto-Umbilical fistula.* Br J Radiol, 57 : 1036, 1984.
4. Pangan J C et al: *Cholecystoduodenocolic fistula with recurrent gall stone ileus.* Arch Surg, 119 : 1201-1203, 1984.
5. Zwaveling A et al : *Anomalies of the bile passages combined with acute gall bladder perforation.* Br J Radiol, 40, 475: 528-532, 1987.

KRUKENBERG'S TUMOUR–A CASE REPORT AND REVIEW OF LITERATURE

Abdus Shakur

Key Words :

Krukenberg's tumour, Ovary, Gastric carcinoma.

Summary :

Secondary Krukenberg's tumour developing in the ovary after metastasis from gastric carcinoma is a common disease in Japan. In our country gastric carcinoma is common in male but rare in the female. So Krukenberg's tumour in our country is not as common as in Japan but is equally fatal. A case of such a tumour is presented.

Introduction :

Ovarian tumour with characteristic histological features is known as Krukenberg's tumour. In 1896, Krukenberg described this microscopic picture consisting of signet ring cells in the midst of fibromyxomatous stroma. Tumour which shows this features may arise either in the ovary denovo (primary) or after metastasis commonly from gastric carcinoma (secondary) (Jones et al, 1988). The primary and secondary tumours differ markedly in their biological behaviour. Secondary tumour is fatal and the patient usually dies within six to 18 months after the diagnosis whereas a patient of primary tumour may live as long as 12 years (Scully, 1988). So their differentiation by clinical history, physical examination and investigation is very significant. Most of the Krukenberg's tumour are secondary to gastric carcinoma (Jones et al, 1988). In Japan, gastric carcinoma is quite common but it is comparatively rare in western countries (Dayal and DeLillis, 1989). In our country gastric carcinoma is common in male but rare in female. So secondary Krukenberg's tumour in our country is not as common as in Japan but equally fatal all over the world. Such a rare but fatal case of Krukenberg's tumour is presented.

Abdus Shakur, Professor of Surgery (current charge), Sir Salimullah Medical College and Mitford Hospital, Dhaka.

Case Report :

Mrs. S N, aged 45 years, was referred to our surgical unit from the medical ward in December, 1989 for the managment of a growing mass in the hypogastrium. The patient gave the history of peptic ulcer for last one year. She was in the first year of her menopause. She was emaciated and anaemic. The mass detected in the hypogastrium was lobulated, mobile and separated from the uterus. Cervical lymphnodes were not palpable. Barium contrast examination (meal and enema) did not reveal

any abnormality. On ultrasonogram a solid, irregular mass was discovered anterior to the right kidney. Hepatobiliary system, kidneys, uterus and bladder were normal. Endoscopy of the upper G I tract could not be done. Laparotomy by right lower paramedian incision revealed the mass incorporating with right ovary. The mass was easily excised. The whole abdomen did not reveal any pathology except an infiltrating growth at the middle of the stomach near the greater curvature. The growth could not be removed due to its dense adhesion with the pancreas and superior mesenteric vessels. The right ovarian mass was 12 cm by 10 cm by 8 cm in size. It was rounded, lobulated, greyish-white in colour. Cut mucoid surface showed certain small cystic areas. The opposite ovarian mass, having the size and shape of a cricket ball, was excised. Three specimens, one from the stomach and two from ovarian masses, were histopathologically examined. All three specimens showed signet ring cells amidst fibrous tissue stroma establishing the diagnosis of secondary Krukenberg's tumour (Fig.-I). The patient was discharged on the sixteenth post operative day with an advice to report after two weeks for check up. Unfortunately she did not report.

Fig—1. *Histopathological picture of Krukenberg's tumour (right ovary) showing signet ring cells.*

Discussion :

Eighty percent secondary Krukenberg's tumours come from gastric carcinoma and the remaining 20% from colon, biliary tract, pancreas, breast, bladder and uterus (Jones et al, 1988). Primary tumour usually arise from teratoma, mucinous cyst or Brenner's tumour of the ovary (Jones et al, 1988). Krukenberg's tumour is most common in the fifth decade of life but 30 to 40% cases may affect premenopausal women (Scully et al, 1988). In Japan secondary tumour is common because in that country gastric carcinoma is a common malignant disease both in male and female. In our country, though gastric carcinoma is common but it is comparatively rare in female. That is why Krukenberg's tumour is not common in our country. Life styles of male and female are different in our country but more or less same in Japan. This may be an explanation of lesser incidence of gastric carcinoma and secondary Krukenberg's tumour in our woman folks. Though rare it is equally fatal. So early diagnosis followed by gastrectomy, hysterectomy along with removal of bilateral tubo-ovarian mass are advocated. Early diagnosis depends on history, clinical examination and investigation. Woman complaining of gastric symptoms specially

in her fifth decade of life should be examined thoroughly by endoscopy to discover gastric carcinoma at the initial stage. But only one third of gastric carcinoma gives symptoms at the early stage of the disease (Scully et al, 1988). Here in this case, barium meal examination failed to give any clue to the diagnosis. Symptoms related to the organs like colon, biliary tract, pancreas, breast, uterus and bladder should be carefully investigated. Breast being the common organ affected by malignant lesion needs to be investigated even on slightest suspicion by physical examination and mammography. Krukenberg's tumour may affect ovarian hormone and result abnormal uterine bleeding and virilism (Scully et al, 1988). Ninty percent patients may have symptoms related to ovary such as pain and hypogastric swelling (Scully et al, 1988). Relevant organs must be investigated appropriately on slightest suspicion. Laparoscopy gives some idea regarding the intra-abdominal organs. In advanced cases cytology of ascitic fluid may show signet ring cells. In the absence of secondaries in sites other than ovary, excision of primary tumour with bilateral oophorectomy and hysterectomy is the treatment of choice (Thidall, 1987). According to some authors. bilateral oophorectomy can offer a good palliation to the patient, even if the primary tumour cannot be removed. Probably the growth of the primary tumour is retarded due to absence of ovarian hormones on which its growth depends to certain extent (Scully et al, 1988). On this conception bilateral oophorectomy and hysterectomy were done in this particular case. During removal of greyish white lobulated ovarian tumour, one should not forget to examine the other abdominal organs specially the stomach to find out occult or overt carcinoma. Reversely during gastrectomy for carcinoma in female, bilateral oophorectomy and hysterectomy should be routinely performed to avoid future appearance of Krukenberg's tumour specially in menopausal and postmenopausal women.

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References :

1. Dayal Y, DeLillis R A: *The gatrointestinal tract : Oesophagus.* In : Contan R S, Kumer V, Rabbers S L (Eds): Rabin's Pathologic basis of diseases, 4th ed, Philadelphia, Saunders, 827-909, 1989.

2. Jones III H W, Wentz A C, Burnett L S (Eds) : Novak's Text of Gynae cology, 11th ed, Baltimore, Williams and Wilkins, 782-92, 1988.

3. Scully R F, Mark E T, McNeely W F, McNeely B U : Case Records of Massachusetts General Hospital. The New Eng J med, 319 (15) : 1004-9, 1988.

4. Tindall V R (Ed). Jeffcoate's Principles of Gynaecology, 5th ed, London, Butterworth, 450-82, 1987.

COLLEGE NEWS

Continuing Medical Education :

27-9-90 — Dr. Manzoor Hussain
Associate Professor of Paediatrics, Bangladesh Institute of Child Health, Dhaka delivered lecture on "Sources of diagnostic error in acute Rheumatic fever".

Weekend Course :

A short intensive course in Basic Science subjects (on Thursdays and Fridays in each month except December and January) was held for FCPS Part I candidates. The registration fee of this course is Tk. 100/- only per weekend.

Orientation Course :

In addition to weekend course, a four weeks Orientation course for candidates of FCPS I Examination was held on 1-12-90 to 29-12-90. Three teachers from U K delivered lectures in the course.

The registration fee for the course is Tk. 500/- only.

Examination News :

Results of FCPS Part I, FCPS Part II and MCPS Examinations held in January, 1991 are given below :

315 candidates appeared in FCPS Part I Examination held in January, 1991 of which 15 candidates came out successful. Subjectwise results are as follows :

Subject	Number appeare in theory examination	Number qualified for viva-voce	Number passed
Medicine	56	11	3
Surgery	80	15	4
Obst. & Gynae	49	6	1
Paediatrics	33	10	0
Ophthalmology	33	2	0
ENT Diseases	18	4	2
Psychiatry	5	1	0
Anaesthesiology	17	7	3
Radiology	7	1	0
Radiotherapy	6	2	1
Pathology	7	0	0
Physical Medicine	4	1	1
Total	315	60	15

98 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
4	Dr. Md. Sumsul Arfin	Chittagong Medical College	Medicine
5	Dr. Md. Muhibur Rahman	Dhaka Medical College	Medicine
7	Dr. Md. Mokhlesur Rahman	Dhaka Medical College	Medicine
9	Dr. A. K. M. Manzur Murshed	Chittagong Medical College	Medicine
20	Dr. Md. Fazlul Kadir	Dhaka Medical College	Medicine
21	Dr. Shafiqul Bar Chowdhury	Dhaka Medical College	Medicine
44	Dr. Md. Matiur Rahman	Dhaka Medical College	Medicine
45	Dr. Khan Abul Kalam Azad	Dhaka Medical College	Medicine
46	Dr. Md. Abul Hashem Bhuiya	Mymensingh Medical College	Surgery
48	Dr. Md. Rezwanul Hoque	Rajshahi Medical College	Surgery
50	Dr. Shib Sankar Saha	Rangpur Medical College	Surgery
56	Dr. A. E. Md. Abdul Wasey	Dhaka Medical College	Surgery
65	Dr. Jagadish Chandra Debnath	Dhaka Medical College	Surgery
76	Dr. Md. Mosehuddin Choudhury	Sylhet Medical College	Paediatrics
78	Dr. Barun Kanti Biswas	Sir Salimullah Medical College	Paediatrics
81	Dr. Rokeya Begum	Chittagong Medical College	Obst & Gynae
82	Dr. Sofia Nilufar	Dhaka Medical College	Obst & Gynae
86	Dr. Laila Parveen Banu	Dhaka Medicol College	Obst & Gynae
88	Dr. Rehana Begum	Dhaka Medical College	Obst & Gynae
90	Dr. Shah Alam	Mymensingh Medical College	Ophthalmology
91	Dr. A. K. M. Shamsul Alam	Chittagong Med. College	Anaesthesiology
92	Dr. Jhunu Shamsun Nahar	Medical Academy, Sofia, Bulgaria	Psychiatry
93	Dr. Mohammad Sayadul Islam Mullick	Sher-e-Bangla Medicai College	Psychiatry
95	Dr. Md. Kamrul Hasan Tarafder	Chittagong Medical College	ENT Diseases
96	Dr. Asadullah Mohammad Hossain Saad	Mymensingh Medical College	Radiology
97	Dr. Nila Kantha Paul	Mymensingh Medical College	Radiology

102 candidates appeared in MCPS Examination in different subjects. List of candidates who satisfied the board of examiners is as follows :-

Roll No.	Name	Subject
7	Dr. Md. Mahbubul Haque	Medicine
11	Dr. Md. Abdul Mannan	Medicine
20	Dr. Ranjit Chandra Khan	Medicine
38	Dr. Mohammad Rezaul Karim	Paediatrics
47	Dr. Lutfun Nessa	Obst. & Gynae
50	Dr. Jahan-Ara-Akhter Khanom	Obst. & Gynae
51	Dr. Zakeya Sultana Begum	Obst. & Gynae
74	Dr. Md. Masudul Haque	Ophthalmology
79	Dr. Bijan Kumar Dam	Anaesthesiology
83	Dr. Abdullah Hel Kafi	ENT Diseases
89	Dr. Md. Mokhlesur Rahman	Clinical Pathology
90	Dr. Selina Akhtar	Clinical Pathology
91	Dr. Musammat Sitara Khanam	Clinical Pathology
93	Dr. Md. Rafiqul Haque	Clinical Pathology
97	Dr. S. M. Iqbal Hussain	Dental Surgery
99	Dr. Kazi Mehdih Ul Alam	Dental Surgeon

1st International Scientific Conference of the College (BCPS Con '91).

A three days International Scientific Conference of the BCPS was held on 22-24th January 1991 at College premises. 485 delegates including 17 foreign delegates from U.K., Australia, Japan, USA, Pakistan, India participated in the Conference and presented papers on recent advancement of Medical Sciences in various disciplines. Total 144 papers including four papers in Plenary sessions were presented in the Conference.