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2. Kilpatrick RM, Aseron CA : Radioisotope detection of Meckel's diverticulum causing intestinal bleeding. *Z. Kinderchis* 13 : 210-217, 1973.

Journal article, more than 3 authors :

3. Filler RM, Eraklis AJ, Das JB, et al : Total intravenous nutrition. *Am J Surg* 121 : 454-458, 1971.
4. Coran AG. The hyperalimentation of infants. *Biol Neonat* (in press).

Complete Book :

5. Gallagher JR, Medical care of the Adolescent (ed. 2). New York, Appleton, 1966, p. 208-216.


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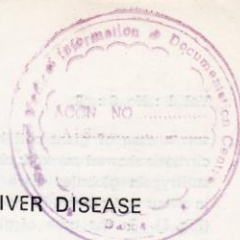
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ALPHA₁ ANTITRYPSIN DEFICIENCY IN CHRONIC LIVER DISEASE AMONG CHILDREN.



Sahera Begum¹

K. M. Nazrul Islam²

SUMMARY :

Four cases of chronic liver disease among children who presented diastase resistant PAS positive globules in the hepatocytes are reported. These are cases of alpha₁ antitrypsin deficiency seen in a series of 35 cases of chronic liver disease among children. Three of these cases had concomitant cirrhosis and the remaining one showed giant cell hepatitis. Abnormalities of alpha₁ antitrypsin and their role in the causation of chronic liver disease have been briefly discussed.

Introduction :

Congenital deficiency of alpha₁ antitrypsin may be associated with chronic liver disease in children and pulmonary emphysema in young adults. Alpha₁ antitrypsin is a protease inhibitor synthesized by the hepatocytes. In 1963 Laurell and Eriksson (1963) first described the relationship between emphysema and alpha₁ antitrypsin deficiency state in adult. After six years, in 1969 Sharp et al showed that deficiency state may be an important cause of chronic liver disease in children (Sharp et al 1969).

The discovery of these disease entities drew the attention of geneticists and biochemists. It is now known that alpha₁ antitrypsin is a rare metabolic disorder, transmitted by autosomal codominant mode of inheritance.

At the ICGMR, Dhaka, retrospective study was undertaken recently to find out the histologic types of chronic liver disease among children. To

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achieve this end, different special stains were employed. PAS stains after diastase treatment was done to find out the globules of alpha₁ antitrypsin in the cytoplasm of the hepatocytes. The association of alpha₁ antitrypsin deficiency and childhood liver disease is now well established (Sadler 1981). The present paper reports incidence of alpha₁ antitrypsin deficiency in a series of paediatric patients suffering from chronic liver disease, admitted in the ICGMR, Dhaka.

Materials and Methods :

A total of 35 paraffin blocks from 35 paediatric patients of chronic liver disease were studied for alpha₁ antitrypsin deficiency. All of the patients were below the age of 15 years, having clinical diagnosis of chronic liver disease. All of the specimens represented needle biopsy samples. With routine haematoxylin and eosin stain all cases were diagnosed as cirrhosis except one, which was a case of giant cell hepatitis. PAS stain after diastase treatment was done in all of these 35 cases and globules of alpha₁ antitrypsin demonstrated in four cases.

Results :

As stated before, out of 35 cases of chronic liver disease four cases were positive for alpha₁ antitrypsin globules. (Table-1.)

Table 1. PAS stain after diastase treatment.

Total	PAS Positive	PAS Negative	Percentage
35	4	31	11.42

Of these four cases, three were diagnosed as cirrhosis with H & E stain and the remaining one

was a case of giant cell hepatitis. One case of cirrhosis showed marked cholestasis. The α_1 antitrypsin globules were large and bright pink in colour and present in the periportal hepatocytes (Fig. 1). In the case of giant cell hepatitis, the α_1 antitrypsin globules were diffusely throughout the cytoplasm of all hepatocytes.

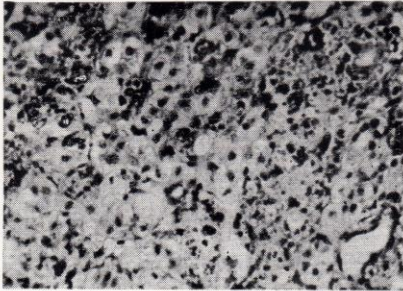


Fig. 1.

No family history could be obtained as the cases were studied retrospectively.

Discussion :

α_1 antitrypsin is a low molecular weight protein. It acts as an inhibitor of proteolytic enzymes released from the cells during tissue injury and thus protects the liver and lung as well as other organs from permanent damage.

There are about 26 alleles of α_1 antitrypsin. The phenotyping system has been labelled as protease inhibitor (Pi). The Pi allele can be separated by electrophoresis and are labelled by the letters of the English alphabet according to their relative electrophoretic mobility. The faster moving bands are given earlier alphabetic codes, whereas slower moving α_1 antitrypsin protein bands have later alphabetical letters. The most common allele is Pi M, which contributes a normal quantity and activity of α_1 antitrypsin to the serum. Two Pi Z alleles produce approximately 15-20% of the normal antitrypsin level and is mostly associated with disease condition.

The basic difference between Z and the normal M molecule is the replacement of glutamic acid by lysin in the abnormal Z peptide. It is thought that as a result, the abnormal molecule can not combine with sialic acid. This sialic acid deficient molecule is poorly soluble and is difficult to transport, so they are retained in the dilated cisternae of the rough and smooth endoplasmic reticulum of the hepatocytes and consequently form globules. These globules are strongly PAS positive and diastase resistant, which can be visualised by light microscope. Immunofluorescence or immunoperoxidase technique can also be employed to confirm the diagnosis (Bohm 1980).

In the western population, incidence of α_1 antitrypsin is about 1 : 2000 (Ashok et al 1978). Ashok et al studied to find out the relationship of α_1 antitrypsin with Indian childhood cirrhosis and noted that 30% of the cases were positive for PAS positive globules. Latimer et al (1980) said that 10 to 20% of the children with Pi ZZ phenotype initially develop neonatal hepatitis syndrome. They added that the risk of developing cirrhosis following this condition appears to be higher. Latimaer et al (1980) further observed that 80% of the children who develop cirrhosis or chronic aggressive hepatitis, and had a history of normal hepatitis are α_1 antitrypsin deficient. Sadler (1981) believes that 49% cases of neonatal hepatitis are due to α_1 antitrypsin deficiency. Most of the children are Pi ZZ phenotype, but SZ and MZ phenotype may also be present.

In the present paper of the four cases positive for α_1 antitrypsin globules all had chronic liver disease. The majority (3) had cirrhosis. Mechanism of the causal relationship between α_1 antitrypsin deficiency and chronic liver disease is unknown. It is possible that because of the absence of the protective proteases, liver cells suffer chronic and continuous injury which culminates in cirrhosis.

From this study it is clear that the incidence of α_1 antitrypsin deficiency is not very uncommon in Bangladesh and may be an important factor of chronic liver disease among children.

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ESTIMATION OF GESTATIONAL AGE BY ULTRASONOGRAPHY

Asia A. Khatun,¹ Fauzia Moslem,² K. Ahmed,³
A. H. M. T. A. Chowdhury.⁴

Introduction :

The sequential study of biparietal diameter is an important index of intra-uterine growth of a foetus. It helps to assess the foetal wellbeing, serves an important monitor of placental position and nutritional status; and helps to estimate foetal maturity when last menstrual data is not known and induction is indicated for delayed or complicated pregnancy to avoid prematurity. Ultrasonography is an useful investigation in determination of cephalopelvic disproportion.

The assessment of biparietal diameter with the help of ultrasonography is an accurate and safe method (Donald, 1979). It is accurate because it is done by mapping two dimensional technique and

calculating the angles of its attitude correctly with proper scan measurement. The error can be reduced to less than 1mm when it is done by experienced person with adequate technical knowledge (Taylor, 1978). The hazards of ionizing radiation as in case of X-ray are absent in ultrasonography. Therefore, it proves to be safer than the radiological methods. Because of its accuracy and noninvasive character, ultrasonography is now a days extensively and fruitfully used in obstetrics.

Ultrasonography has been in use in our country for the last few years. We do not have any national standard of biparietal diameter of the foetus. The physical status and nutritional condition of our population are different from those of developed countries. It is expected that the biparietal diameter, which is a measure of gestational age of the foetus may also be different. Therefore, a study has been undertaken to measure biparietal diameter in a normal group of pregnant mothers.

Materials and Methods :

In this study we have evaluated the result of ultrasonography of patients who have been sent to

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assess gestational age. The patients have been referred from indoor and out-patient departments of Institute of Post-Graduate Medicine & Research. They have examined in the Institute of Nuclear Medicine situated in the South Annex Building of IPGMR. Assessment of biparietal diameter is an important part of obstetrical ultrasonography done in the department. In this study we have taken 176 patients whose exact date of last menstruation was known for correlation with clinical findings. These patients have not been suffering from concomitant disease and have history of regular menstruation. The preparation of patients for this purpose is very simple. Only full urinary bladder is required. This is very important as full bladder displaces the air containing gut, pushes the uterus up, exposes the pelvic organs and stands as an anatomical land mark (Fleischer and James, 1980).

The instrument used for the investigation is Emisonic Universal Ultrasonogram of EMI Ltd. This equipment includes a transducer responsible for transformation of energy, which is achieved by the piezoelectric effect. The use of this transducer is an advancement over the Doppler's method in the field of ultrasonography. The system has also the facilities of simultaneous 'A' scan in short persistence oscilloscope or viewing amplitude of echoes and heart movement, variable persistence storage oscilloscope for probe positioning and 12" Video T.V. for gray scale display. There is also a provision for 6" Video monitor for polaroid photography.

The biparietal diameter has always been assessed by physicians working in the Institute of Nuclear Medicine having experience in the field of ultrasonography. The number of obstetric patients attending the Institute is between 30 and 35 daily. About one-third of this is referred for assessment of biparietal diameter. Clinical evaluation of patients are usually done by the obstetrician. However, clinical history is routinely recorded in the Institute while examining a patient by ultrasonography for correlation.

Result and Discussion :

As mentioned earlier 176 cases have been presented here. The sample have been selected

at random. This is a small fraction of total obstetric patients attending the Institute in the year 1981-82. The evaluated measurement have been shown in the table. The graph drawn from the date of the table is shown in the figure 1. It has been found that biparietal diameter of the normal healthy Bangladeshi foetus does not differ from that of developed countries (Hager, 1979 and Metreweli, 1978).

Mean BPD in 176 cases with S.T.D.

Total No. of cases.	Period of Gestation in weeks.	No. of cases.	Mean BPD in mm ± S.T.D.	Range of BPD in mm.
176	13	1	29	
	14	5	30.20 ± 1.33	28 to 32
	15	2	32.50 ± 0.50	32 to 33
	16	4	35.50 ± 2.60	34 to 40
	17	5	41.20 ± 1.60	40 to 44
	18	6	45.33 ± 1.97	43 to 48
	19	1	45.00	
	20	2	52.00 ± 2.50	50 to 55
	21	1	55.00	
	22	3	56.67 ± 0.47	56 to 57
	23	5	62.00 ± 1.26	60 to 63
	24	1	62.00	
	25	3	67.66 ± 0.47	67 to 68
	26	4	69.25 ± 2.25	69 to 72
	27	3	74.67 ± 1.58	72 to 76
	28	8	75.00 ± 1.32	74 to 78
	29	3	78.00 ±	78 to 80
	30	1	84.00	
	31	6	83.67 ± 1.96	82 to 86
	32	7	85.43 ± 0.73	84 to 86
	33	12	87.88 ± 1.28	85 to 90
	34	17	90.29 ± 4.24	82 to 96
	35	10	92.00 ± 0.77	90 to 93
	36	17	94.94 ± 2.73	90 to 98
	37	11	95.63 ± 1.07	93 to 97
	38	12	96.92 ± 0.76	96 to 98
	39	10	98.00 ± 0.63	97 to 99
	40	16	99.25 ± 0.66	98 to 100

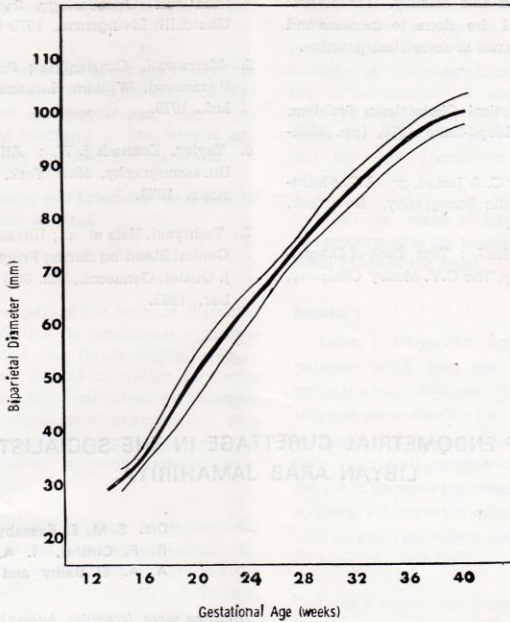
Fetal Biparietal Diameter Against Gestational Age
Mean \pm SD

Fig. 1.

Although the average birth weight of our baby is reported to be lower than that of western countries, biparietal diameter remains comparable. This correlates with another study done in the department (unpublished). However, a separate study has been undertaken to show the correlation between birth weight and foetal length, head circumference and biparietal diameter.

In the present study, there are sufficient number of cases in the last trimester of pregnancy and results seem to be statistically reliable. During this period, the determination of gestational age is important to avoid premature delivery by caesarian section, or induction of labour in cases of obstetric complication. Therefore, the parameters obtained by ultrasonography may be considered to be adequate for determination of approximate gestational age of the foetus. The

clinical examination is of course, always important. In cases of any disagreement and doubt, the ultrasonography may be repeated and expert opinion should be obtained.

Conclusion :

The determination of gestational age by ultrasonography has been found to be a reliable method (MacDonald, 1978). In cases of normal healthy individual, the biparietal diameter of Bangladeshi foetus does not seem to differ much from that of developed countries. Since, till now, there is no known hazard of ultrasonography either to the foetus or to the mother, this method may be used safely for determination of gestational age. The biparietal diameter of the foetus is likely to vary with maternal health and other complications. Therefore, these facts should be kept in mind while determining the gestational

age from the biparietal diameter. Since the ultrasonography is new in this country, it is felt that further study should be done to increase and ensure reliability of its use in obstetrical practice.

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A STUDY OF ENDOMETRIAL CURETTAGE IN THE SOCIALIST PEOPLE'S LIBYAN ARAB JAMAHIRIYA.

Drs. S. M. El Kassaby, M. G. Muazzam,
R. P. Chishti, I. A. El Muntasser,
A. A. El Badry and I. A. Alloba.

SUMMARY :

2909 endometrial curettage examined during the period of September 1979 to December 1981 in the Department of Pathology, Al-Fateh University, Tripoli, Libya is reported.

The common indications for curettage were abnormal uterine bleeding (40.98%), infertility (31.35%) and complications of pregnancy (23.72%), making a total of 96.05%.

82.63% of the patients belonged to the reproductive period of life (21-45 years).

Some pathological findings were found in 52.56% of cases. The important pathological

findings were, irregular hormonal response (IHR) (16.99%), endometrial hyperplasia (11.62%), persistent oestrogenic stimulation (9.42%), mole formation (2.33%) and endometritis (0.86%).

The incidence of uterine malignancy (0.31%) and tubercular endometritis (0.27%) were significantly low.

Among the infertility cases 34.32% showed endometrial pathology indicating the responsibility for failure of conception in the female partners. The pathological findings in these cases were in the form of anovulation (16.67%), IHR (11.62%), endometrial hyperplasia (5.04%), tubercular endometritis (0.77%) and miscellaneous conditions (0.22%).

Thus, the common indications of endometrial curettage are abnormal uterine bleeding, infertility and complications of pregnancy.

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The common pathological findings are IHR, endometrial hyperplasia and persistent oestrogenic stimulation.

Infertility cases represent about one third of the total endometrial biopsies and about one third of them show certain endometrial pathology. The common causes of infertility in the females are, anovulation, IHR and endometrial hyperplasia.

Uterine malignancy and tubercular endometritis are significantly low in Libya.

Introduction :

Endometrial biopsy in the form of dilatation and curettage (D & C) is the commonest investigation in any Obstetric and Gynaecological department. The usual clinical conditions for which D & C is done are abnormal uterine bleeding, infertility and complications of pregnancies. It is also done for therapeutic purposes in order to regularise menstruation, although diagnostic curettage is more common.

We receive a large number of endometrial biopsies from different hospitals in Tripoli, and we thought it will be interesting to publish our findings as no such study is known to have been published from Libya.

Materials and Methods :

Most of the specimens were obtained from the Al-Jela hospital in Tripoli. A small number of specimens were also obtained from the Al-Fateh, Al-Khadra and Bab-al-Azizia hospitals in the city. Most of the patients were Libyans.

The period of study is from the September 1979 to the December, 1981. All the specimens were preserved in 10% buffered formalin immediately after operation and sent to the laboratory next morning. Each specimen was examined after fixation, processed as paraffin sections and cut at different levels and stained with haematoxylin and eosin. Whenever necessary serial sections were cut to come to a proper diagnosis.

The number of endometrial specimens received during the period of study was 3026 which is 53.6% of all the biopsies. 117 specimens were mostly blood clot or mucus with very little endometrial tissue and inadequate for report. So the actual number of specimens studied and reported here is 2909. Out of these in 612 (21.03%) cases the age of the patients was not available, and the age distribution is given for 2297 patients.

In all the cases of infertility the curettage was performed in the fourth week or the premenstrual phase of the cycle.

Results :

Table 1 shows the age distribution of 2297 patients along with the clinical diagnosis for which the biopsies were indicated. 96.30% (2212) biopsies were done for the three important clinical conditions, irregular uterine bleeding (977), infertility (712) and complications of pregnancy (523). 286 (12.45%) cases belonged to the age group 16 to 20 years, (16 being the minimum age in the series). 1898 (82.63%) patients belonged to the group 21 to 45 years, the reproductive period of life.

Table 2 shows the histopathological findings of 2909 specimens along with the clinical diagnosis. The table includes 25 cases in which no clinical diagnosis was available. 2794 (96.04%) curettage were done for three clinical complaints, 1192 (40.98%) for abnormal uterine bleeding, 912 (31.35%) for infertility and 690 (23.72%) for complications of pregnancy and 90 (3.09%) had miscellaneous complaints.

As for the histopathological findings 913 (31.39%) were secretory endometrium, 583 (20.04%) were non-secretory, 535 (18.39%) showed products of conception and mole formation, 494 (16.98%) showed irregular hormonal response, 338 (11.62%) had endometrial hyperplasia and 46 (1.58%) showed miscellaneous findings.

Table 1. Age distribution of 2297 cases of Endometrial Curettage with Clinical Indications

Age-group in years.	Abnormal Uterine Bleeding.	Infertility.	Complications of Pregnancy.	Miscellaneous complaints.	Total	Percentage.
16 to 20	63	155	65	3	286	12.45
21 to 25	160	240	131	7	538	23.42
26 to 30	163	182	127	15	487	21.20
31 to 35	160	74	105	16	355	15.46
36 to 40	215	47	69	17	348	15.15
41 to 45	127	12	19	12	170	7.40
46 to 50	61	2	7	8	78	3.40
51 to 55	20	...	...	...	20	0.87
56 to 60	4	...	...	2	6	0.26
61 to 65	1	...	...	3	4	0.18
66 to 70	...	...	...	1	1	0.04
71 to 75	1	...	...	1	2	0.09
76 to 80	1	...	...	...	1	0.04
81 to 85	1	...	...	...	1	0.04
Total	977	712	523	85	2297	100.00

Table 2. Microscopic Findings of 2909 cases along with Clinical Diagnoses.

Microscopic Findings.	Abnormal Uterine Bleeding.	Infertility.	Complications of pregnancy.	Miscellaneous complaints.	No diagnosis available.	Total	Percentage.
Non-secretory Endometrium.	330	152	74	21	6	583	20.04
Secretory Endometrium.	216	589	74	25	9	913	31.39
Products of conception and mole.	101	11	422	1	—	535	18.39
Irregular Hormonal response.	304	106	56	21	7	494	16.98
Endometrial Hyperplasia.	212	46	56	22	2	338	11.62
Miscellaneous Findings	29	8	8	—	1	46	1.58
Total	1192	912	690	90	25	2909	100.00
Percentage	(40.98)	(31.35)	(23.72)	(3.09)	(0.96)	(100.00)	

Table 3 shows the age distribution of 447 cases of non-secretory endometrium. Only 29 (6.49%) cases belonged to age group 16 to 20 years, 395 (88.36%) were between 21 to 45 years.

Table 3. Age distribution of 447 cases of Non-secretory Endometrium.

Age-group in years.	Types of Non-secretory endometrium.		Total.	Percentage.	Remarks.
	Proliferative endometrium.	Persistent Oestrogenic stimulation.			
16 to 20	14	15	29	6.49	
21 to 25	72	81	153	34.24	
26 to 30	51	35	86	19.24	
31 to 35	36	21	57	12.75	Total number in reproductive age is 395 (88.36%).
36 to 40	35	33	68	15.21	
41 to 45	11	20	31	6.94	
46 to 50	7	3	10	2.24	
51 to 55	2	2	4	0.89	
56 to 60	1	3	4	0.89	
61 to 65	—	4	4	0.89	No age was available for 136 patients.
66 to 70	—	—	—	—	
71 to 75	—	1	1	0.22	
Total	229	218	447	100.00	
Percentage	(51.23)	(48.77)	(100.00)		

Table 4 shows the types of non-secretory endometrium of 583 cases along with clinical indications. 330 (56.60%) patients complained of abnormal uterine bleeding, 152 (26.07%) of infertility—102 primary and 50 secondary, 74 (12.70%) had

complications of pregnancy and 21 (3.60%) came with miscellaneous complaints. 309 (53.00%) showed usual proliferative phase and the remaining 274 (47.00%) had evidence of persistent oestrogenic stimulation.

Table 4. Types of 583 Non-secretory Endometrium with Clinical Diagnosis.

Clinical Diagnosis.	Proliferative Endometrium.	Persistent Oestrogenic stimulation.	Total.	Percentage.	Remarks.
Abnormal uterine bleeding.	180	150	330	56.60	
Infertility	74	78	152	26.07	
Complications of pregnancy.	41	33	74	12.70	
Miscellaneous findings.	12	9	21	3.60	
No diagnosis available.	2	4	6	1.03	
Total	309	274	583	100.00	
Percentage	(53.00)	(47.00)	(100.00)		

Table 5 shows the case distribution of 725 patients showing secretory endometrium. 128 (17.66%) were below 21 years, 579 (79.86%) were between 21 to 45 years and 18 (2.48%) were between 46 to 51 years.

Table 5. **Age distribution of 725 cases of Secretory Endometrium.**

Age group.	Number of patients.	Percentage.	Remarks.
16 to 20	128	17.66	No age was available for 188 patients.
21 to 25	211	29.10	
26 to 30	176	24.28	79.86% were in reproductive age.
31 to 35	89	12.28	
36 to 40	71	9.79	
41 to 45	32	4.41	
46 to 50	17	2.34	
51 years	1	0.14	Only one above 50.
Total	725	100.00	

Table 6 shows 913 patients with secretory endometrium along with the clinical indications. 589 (64.5%) cases were investigated for infertility, 210 (23.00%) for uterine bleeding, 74 (8.10%) for complications of pregnancy and 25 (2.74%) for miscellaneous cases.

Table 6. **913 Cases of Secretory Endometrium with Clinical Indications.**

Clinical Diagnosis.	Number of patients.	Percentage	Remarks.
Abnormal Uterine Bleeding.	216	23.66	
Infertility	589	64.51	339 primary sterility 250 secondary "
Complications of pregnancy.	74	8.10	
Miscellaneous Findings.	25	2.74	
No diagnosis available.	9	0.99	
Total	913	100.00	

Table 7 shows 400 patients with irregular hormonal response. Only 34 (8.50%) were below 20 years, 345 (86.25%) between 21 to 45 years and 21 (5.25%) between 46 to 68 years.

Table 7. **Age distribution of 400 cases of Irregular Hormonal Response (IHR).**

Age group.	Number of patients.	Percentage.	Remarks.
16 to 20	34	8.50	
21 to 25	87	21.75	86.25% belonged to the reproductive age group.
26 to 30	83	20.75	
31 to 35	67	16.75	
36 to 40	69	17.25	
41 to 45	39	9.75	No age was available for 94 patients.
46 to 50	17	4.25	
51 to 55	3	0.75	
56 to 68	1	0.25	
Total	400	100.00	

Table 8 shows 494 cases of irregular hormonal response (IHR) with clinical indications. 304 (61.54%) patients complained of uterine bleeding, 106 (21.46%) had infertility, 56 (11.34%) had complications of pregnancy and 35 (7.09%) had miscellaneous complaints.

Table 8. **494 cases of Irregular Homonal Response (IHR) with Clinical Diagnosis.**

Clinical diagnosis.	Number of patients.	Percentage.	Remarks.
Abnormal Uterine Bleeding.	304	61.54	
Infertility	106	21.46	57 primary. 49 secondary.
Complications of pregnancy.	56	11.34	
Miscellaneous Findings.	21	4.25	
No diagnosis available.	7	1.41	
Total	494	100.00	

Table 9 shows the age distribution of 407 cases of complications of pregnancy. 40 (9.83%) cases were below 21 years, 361 (88.70%) between 21 to 45 years and 6 (1.47%) between 46 to 51 years.

Table 9. Age distribution of 407 cases of Complications of Pregnancy.

Age group.	Products of conception.	Mole formation.	Total.	Percentage.	Remarks.
16 to 20	33	7	40	9.83	5 were aged 20.
21 to 25	71	9	80	19.66	361 (88.70%) were in the reproductive age group.
26 to 30	93	12	105	25.80	
31 to 35	81	16	97	23.83	
36 to 40	62	4	66	16.22	
41 to 45	12	1	13	3.19	
46 to 50	4	1	5	1.23	No age was available in 128 cases.
51 years	1	—	1	0.24	
Total	357	50	407	100.00	
Percentage	(87.71)	(12.29)	(100.00)		

Table 10 shows 535 cases of complications of pregnancy along with clinical indications for curettage. 467 (87.29%) showed products of conceptions and 68 (12.7%) developed vesicular moles. 422 (78.88%) were investigated for complications of pregnancy (326 for abortions and 96 for suspected mole formation), 101 (18.88%) for uterine bleeding, 11 (2.05%) for infertility and 1 (0.79%)

was suspected to be carcinoma body of the uterus. 10 of the infertility cases showed products of conception and one developed into hydatidiform mole. Among the cases of complication of pregnancy, 96 were investigated for mole formation and 61 of them did show mole formation; while the remaining 35 showed only products of conception.

Table 10. Types of cases of Complications of Pregnancy.

Clinical Diagnosis.	Products of conception.	Mole formation.	Total.	Percentage.
Abnormal Uterine Bleeding.	100	1	101	18.88
Infertility ...	10	1	11	2.05
Complications of pregnancy.	356	66	422	78.88
Miscellaneous Findings.	1	—	1	0.19
Total	467	68	535	100.00
Percentage	(87.29)	(12.71)	(100.00)	

Table 11 shows the age distribution of 276 cases of endometrial hyperplasia. Only 18 patients were below 21 years (6.52%). 222 (80.43%) were

between 21 to 45 years while 36 (13.05%) were between 46 to 75 years.

Table 11. Age distributin of 276 cases of Endometrial Hyperplasia.

Age group.	Hyperplasia without cystic change.	Hyperplasia with cystic change.	Total.	Percentage.	Remarks.
16 to 20	15	3	18	6.52	13 were aged 20.
21 to 25	33	10	43	15.58	222 (80.43%) in the reproductive age group.
26 to 30	29	3	32	11.59	
31 to 35	30	7	37	13.40	
36 to 40	53	10	63	22.83	
41 to 45	40	7	47	17.03	No age was available for 62 patients.
46 to 50	22	2	24	8.70	
51 to 55	4	1	5	1.81	
56 to 60	2	...	2		
61 to 65	2	...	2	2.54	
66 to 70	2	...	2		
71 to 75	...	1	1		
Total	232 (84.05)	44 (15.95)	276 (100.00)		

Table 12 shows 338 cases of genuine hyperplasia of endometrium along with the clinical diagnosis. Only 51 (15.09%) showed prominent cystic (swisscheese) pattern, 212 (62.72%) patients

complained of irregular uterine bleeding, 56 (16.57%) had complications of pregnancy, 46 (13.61%) were investigated for infertility, 22 (6.51%) had miscellaneous complaints.

Table 12. Types of Hyperplasia in 338 patients along with Clinical Diagnosis.

Clinical diagnosis.	Hyperplasia without cystic change.	Hyperplasia with cystic change.	Total	Percentage.
Abnormal Uterine Bleeding.	177	35	212	62.72
Infertility	42	4	46	13.61
Complications of pregnancy.	47	9	56	16.57
Miscellaneous Findings.	19	3	22	6.51
No diagnosis available.	2	...	2	0.59
Total	287 (84.91)	51 (15.09)	338 (100.00)	

Table 13 shows the age distribution of 38 cases of miscellaneous findings. Only 2 cases were of 20 years age, 29 belonged to 21 to 45 years and 7 were above 45 years (5 between 46 to 55, 1 aged 60 and 1 aged 80 years).

Table 13. **Age distribution of 38 Patients with Miscellaneous Findings along with Clinical Indications.**

Age group.	Abnormal Uterine Bleeding.	Infertility.	Complications of pregnancy.	Miscellaneous findings.	Total.	Remarks.
20 years	1	...	1	...	2	
21 to 25	2	3	2	...	7	For 8 more cases age was not available.
26 to 30	2	2	3	...	7	
31 to 35	2	...	...	...	2	
36 to 40	5	...	2	1	8	
41 to 45	5	...	...	...	5	
46 to 50	2	...	...	...	2	
51 to 55	3	...	...	...	3	
56 to 60	1	...	...	...	1	
80 years	1	...	...	...	1	
Total	24	5	8	1	38	

Table 14 shows the miscellaneous findings of 46 patients along with the clinical indications. 25 (54.34%) were cases of endometritis—7 acute or septic, 10 chronic non-specific and 8 (17.39%) tubercular. 7 cases of tubercular endometritis complained of infertility. There were only 9 (0.31%) cases of malignancy.

Table 14. **Types of 46 Miscellaneous Findings along with Clinical Indications.**

Microscopic Findings.	Abnormal Uterine Bleeding.	Infertility.	Complications of Pregnancy.	Miscellaneous Findings.	No diagnosis.	Total.	Remarks.
Acute Endometritis	3	...	4	...	...	7	7 more cases of adenomyosis were found with endometrial hyperplasia (5) and IHR (2), making a total of 12.
Chronic non-sp. Endometritis.	9	...	...	...	1	10	
Tubercular Endometritis.	1	7	...	...	...	8	
Malignant Conditions.	8	...	1	...	...	0	
Adenomyosis	...	4	...	1	...	5	
Endometrial Polypi	2	...	1	1	...	4	
Atrophic Endometrium.	2	...	...	...	...	2	
Syncytial Endometritis.	...	...	1	...	...	1	
Total	29	7	8	1	1	46	

Discussion :

The clinical conditions for which the patients were investigated are grouped in four categories viz. irregular uterine bleeding, infertility, complications of pregnancy and the miscellaneous group. The histopathological findings are grouped into six categories—Non-secretory endometrium, secretory endometrium, products of conception and mole formation, irregular hormonal response, endometrial hyperplasia and miscellaneous findings (which include the few malignant cases).

Endometrial biopsies comprise 53.6% of all the biopsies received in this department. The percentage is relatively high as the department receives all the cases from the largest obstetric and gynecological hospital (Al-gela) in Tripoli. Maximum number of patients were investigated for abnormal uterine bleeding.

1192 (40.98%) complained of abnormal uterine bleeding where as Baiton and Hadley (1975) reported 51.3% and El Bedeiwy et al (1976) reported 60.7% in their series.

696 (58.39%) cases of abnormal uterine bleeding showed no organic changes which indicates that a large number of irregular uterine bleeding is often functional in nature (Hark et al, 1963). This shows that abnormal uterine bleeding is the commonest gynecological complaint.

Infertility cases represent 31.35% (912) of the biopsies which is relatively higher than the incidence as 25.8% reported in Egypt (El Bedeiwy et al, 1976). It indicates that infertility is one of the major gynaecological problems in Libya which needs further study. The third important complaint for which curettage was done, was 690 (23.71%) patients with complications of pregnancy, in the form of abortions, post partum haemorrhage and mole formation etc. and 467 (16.05%) of them showed products of conception.

1. Non-secretory endometrium :—

The incidence of Non-secretory endometrium in this series is 20.04% (583) and 47% of them had the evidence of persistent oestrogenic stimulation (Tables, 3 & 4), characterised by proliferative endometrium with occasional multilayering of the

glandular epithelium and compact cellular stroma showing no cystic dilatation. Maximum number of these cases (81) belonged to the age group 21-25 years (Table 3).

This higher incidence of persistent oestrogenic stimulations in this relatively younger age group may indicate that ovarian function is not still stabilized or there is increased degree or receptivity of the endometrium (10). Besides, indiscriminate use of hormones as contraceptive by young females or given to them as therapy may also contribute to this abnormality.

330 (56.60%) of the non-secretory patients complained of uterine bleeding and 152 (26.07%) were cases of infertility.

So, the main complaints in this category were uterine bleeding and infertility (82.67%).

Since the curetette of all the cases of infertility was done in the premenstrual period, the presence of non-secretory phase in these 152 indicate evidence of anovulation.

2. Secretory endometrium :—

The incidence of secretory endometrium in this series is 31.39% (913) and 64.51% (589) of them complained of infertility (Table 6).

This indicate ovulation and the causes of the infertility is mostly in the male partners of these cases. From this finding, it is evident that the male partner should be investigated first especially in primary sterility cases.

216 (23.66%) of these patients complained of uterine bleeding.

So, the main complaints in this category also were infertility and uterine bleeding (88.17%).

3. Irregular hormonal response (IHR) :—

The incidence of IHR in this series is 16.98% (494).

304 (61.54%) complained of uterine bleeding and 106 (21.46%) complained of infertility (Table 8).

So, the main complaints for IHR patients were again uterine bleeding and infertility (83%).

IHR may be responsible for these 106 infertility cases.

4. Products of conception and mole formation :—

The incidence of these cases in the series is 18.39% (535).

Although the majority of these cases belonged to the reproductive period, 6 cases (1.47%) were between 46-51 years (Table 9). This indicates late menopause in a small percentage of cases and even pregnancy may occur in relatively elderly women.

Although 101 (18.88%) were investigated for uterine bleeding and 11 cases for infertility (Table 10), 422 (78.88%) of these cases were investigated for complications of pregnancy.

68 (12.71%) of this category showed mole formation which represents 2.33% of the total series.

5. Endometrial Hyperplasia :—

Total number of endometrial hyperplasia in this series is 338 (11.62%). Evidence of cystic hyperplasia was found in 51 patients (1.75% of the series) which is relatively low than that reported by Bailton and Hadley (1975) which was 2.3% of endometrial biopsies.

We have used the term endometrial hyperplasia for the cases where genuine hyperplasia of the glands were seen with or without cystic dilatation. For other cases with mild degree of growth effect with occasional multilayering of glandular epithelium and compact stroma, we have used the term persistent oestrogenic stimulation and included them in the non-secretory group. Novak and Woodruff (1974) also state that, "Perhaps it would be better to speak of the entire group as proliferative or non-secretory, reserving the term hyperplasia, for those cases in which genuine hyperplastic changes are observed being always mindful of the stage of the cycle at which curettage was performed."

Only 6.52% (18) patients were below 21 years (age, 80.34% (222) were between 21 to 45 years and 13.05% (38) were in post menopausal period, Table 11). Novak (1956) reported post menopausal

hyperplasia in 20.99% of his cases. Bailton and Hadley (1975) however, reported 79% of their cases in age group 35 to 50 years, the corresponding figure in this series is 41.66% between 36 to 50 years.

The lower incidence in our series may be due to the fact that normal physiological reproductive life is more common in this country.

212 (62.72%) complained of abnormal uterine bleeding, 50 (16.57%) showed complications of pregnancy, however, 46 (13.61%) patients complained of infertility and the hyperplastic endometrium may be responsible for their sterility (Table 12).

So, abnormal uterine bleeding, complications of pregnancy and infertility were the main complaints of these patients (92.90%).

6. Miscellaneous Findings :—

Out of 25 cases showing endometritis only 8 cases were tubercular, representing 0.27% which is comparable to the finding of Israel et al (1963) who reported 0.28% incidence in unsuspected cases of curettage. However, the incidence of tubercular endometritis reported in Egypt was 1.8% (El Bedeiwy, 1976).

Among the infertility cases (912) only 7 patients with primary infertility had tubercular endometritis (0.77%), but Scharman (1952) and Sutherland (1960) reported 5% incidence in their sterility cases. Also, Barnes (1980) reported 2-5% incidence in women complaining of sterility.

So, the findings show that tubercular endometritis is not common in Libya and one of the rarest causes of sterility in this country.

There were only 4 cases of endometrial polypi. The low incidence of the endometrial polypi is expected as, "most of them are revealed only accidentally, either on curettage or in the routine laboratory examination of uteri, removed at operation or other reasons" (Novak, 1974). Only 12 cases (0.41%) of adenomyosis were detected of which 5 were associated with endometrial hyperplasia and 2 with IHR. Curettage is not the ideal method for the diagnosis of adenomyosis and hence

the low incidence in this series. The best way to detect adenomyosis is to examine the hysterectomy specimens with sufficient sections. Novak and Woodruff (1974) reported 25-40% cases of adenomyosis in hysterectomy specimens. Hunter et al (1947) reported an incidence of 27.8% in their surgical specimens while Bird et al (1972) reported 62% after thorough examination of removed uteri.

Malignant conditions were only 9 cases (0.31%) while Bailton and Hadly (1975) reported 0.50% incidence. Among the malignant cases 5 were endometrial adenocarcinoma with an average age of 57 years which is the same reported by Novak and Woodruff (1974). The remaining cases were 2 leiomyosarcomas, one adeno-epidermoid and one mixed mesodermal tumor. This indicates that adenocarcinoma is the commonest malignant tumor of the uterus, in the series.

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HEPATOBRONCHIAL FISTULA—A CASE REPORT.

N. A. Khan

Hepatobronchial fistula is not a common condition. Its onset is very insidious and the course being more chronic it may cause serious and complex surgical problems. Hepatic trauma, abscess (amoebic, pyogenic and echinococcus) and bile duct obstruction in association with a calculus may

result in a fistulous communication between the biliary tree and the subdiaphragmatic space. Secondary infection or huge collection of bile under pressure under the diaphragm may cause erosion of the latter structure and lead to a hepatobronchial fistula. We report herewith the successful surgical management of such a problem in a 22 years old lady student of Rajshahi University,

Department of Cardiovascular & Thoracic Surgery,
Institute of Cardiovascular Diseases, Dhaka.

CASE REPORT :

Mrs. R.K., a 22 years young lady from Rajshahi District was first admitted in the Medical Unit of Rajshahi Medical College Hospital in Feb. 1982 for pain in the right hypochondrium, fever, occasional rigor and vomiting. After treatment with a regime of Metronidazole and antibiotics her pain and fever subsided in a week and she was released.

In the following months she developed persistent cough with expectoration of greenish sputum about 600-700 ml. a day along with irregular fever. Two months later she became icteric. Gradual weight loss made her almost cachectic by that time. She was again taken to the same hospital and diagnosed as a case of liver abscess with concurrent development of hepatobronchial fistula. She was treated again with broad spectrum antibiotics and transfused with three units of whole blood. With virtually very little gain she was released from the hospital after 3 months and referred to IPCM & R, Dhaka wherefrom she was further referred to ICVD for subsequent management. She was admitted in ICVD in early September, 1982.

Appearance : Pale and ill, Built : below average, Nutritional status : poor, Anaemia : mild ; Jaundice : Moderate ; Pulse : 88/min, regular ; BP. 110/70 mm Hg. Temperature : hectic. Liver and spleen were not palpable. Examination of the Respiratory system showed diminished breath sound in right lower zone. Percussion note was dull from the 3rd ICS down to the whole right side with accompanying bronchial breathing over the region. Examination of all other systems revealed findings within normal limits.

Blood : a) Hgb.—8.6 Gm/dl. b) TWBC.— $7.0 \times 10^3 / \text{MM}^3$. c) DLC : P—66%, L—30%, E—04%. d) ESR—70mm. in 1st hour (Westergren). e) BUN—10-mg%. f) FBS—76-mg%. g) LFT—Serum bilirubin 3.0mg/dl ; rest with normal limits. h) S. Electrolyte Na and Cl normal range and K+ in lower limit.

Stool and Urine : No abnormal findings.

CXR. in PA and lateral exposures—showed a consolidation in right middle lobe (Fig. 1 & 2).

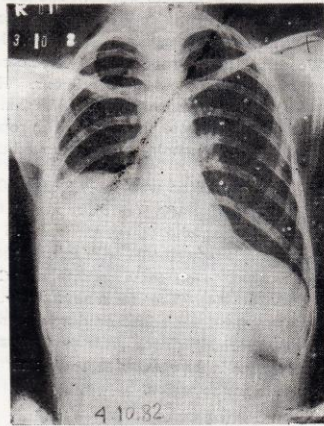


Fig. 1.

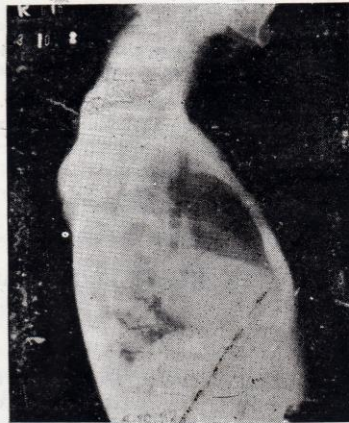


Fig. 2.

Barium meal XR of stomach and duodenum showed no trans-diaphragmatic herniation of abdominal viscera.

Sputum : In culture showed growth of pseudomonas sensitive to cotrimoxazole, carbenicillin and tetracycline.

Ultrasonogram : Of liver and biliary system showed the impression of hepatic enlargement in an irregular fashion along with a semicystic area in the middle of right lobe continuous with a break in the right dome of the diaphragm.

RADIOISOTOPE SCAN of the liver showed a linear zone of diminished radioactivity in the middle of the right lobe extending upto the diaphragm and was commented as "Abscess of liver extending into the lung".

Chest was opened through a right posterolateral thoracotomy. The pleural cavity was completely obliterated by dense adhesion. By extrapleural stripping, first the upper and then the lower lobe of right lung was cleared from the chest wall and the diaphragm. The middle lobe was consolidated and full of biliary mud. There was fistulus communication in between the liver and the middle lobe of the right lung through the diaphragm. The middle lobe was separated from the upper and lower lobes and finally resected. Cut end of bronchus was sutured in two layers using Ethyflex 'OO'.

In the right lobe of liver there was big cavity that was drained through under surface of diaphragm. The defect in the diaphragm was then closed in two layers by reinforcement with a pleural patch using non-absorbable sutures. The chest was closed as usual with a water-seal drain. The subdiaphragmatic drain was brought out through the abdomen.

Specimen : Lung tissue of 2 x 1.5cm with fibrous tissue on one side and some muco-gelatinous material on the other side.

Microscopic examination : Severly inflamed lung tissue around a fistulous tract. Polymorphonuclear and round cell infiltration with plasma cells and large monocytes in the lung parenchyma. Alveoli filled with foamy macrophages and necrotic materials. Old and recent haemorrhages are seen also. One bronchial lumen was filled with bile stained material.

The patient was managed in Intensive Care Unit during its early Post-operative period. Gentamycin and Cloxacillin were given parenterally with other supportive measures. Adequate nutrition, fluid and electrolyte, intake-output chart, care of drainage tubes were all properly instituted.

The patient was gradually coming up with relief of pain, persistent cough, fever, jaundice, vomiting and she was gaining her weight. Her blood counts, liver function tests, sputum culture all shows favourable results.

Chest drainage tube was gradually shortened and totally removed on 22nd post-operative day. But it was reintroduced one week later following discharge of serosanguinous fluid through the wound and radiological finding. The tube was removed completely on 3rd day when there was no collection. The thoracotomy wound thereafter was healed smoothly.

The subhepatic drainage tube was kept for long time because of bile drainage. On reduction of bile drainage a tubo-gram was done and the dye was seen to be smoothly passing to common bile duct and intestine (Fig. 3). The tube gradually

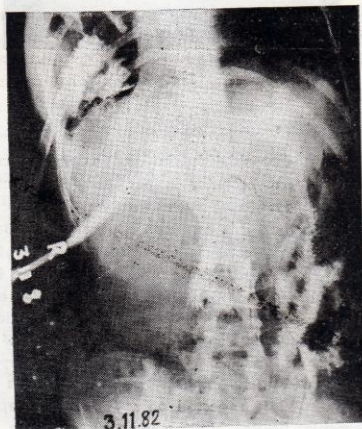


Fig. 3.

shortened and removed completely on 43rd post-operative day. She was discharged from the hospital on 13th February 1983.

On 3rd November 1983 she was again reported for check up when she was found absolutely asymptomatic and her chest skiagram showed a normal picture (Fig. 4).

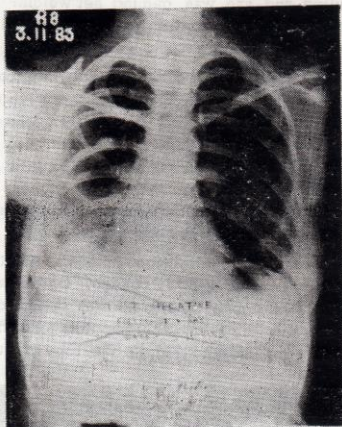


Fig. 4.

Discussion :

Hepato-bronchial fistula is not a common condition that we encounter in our surgical practice. Management of such a condition was never reported before in this country. Ohsner and DeBakay (1936) in their classification of thoracic amoebiasis found 37.7% cases of lung abscess continued from liver abscess and 19.6% cases of broncho-pleural fistula. Lurundi (1966) found 15% (85 patients) cases of thoracic amoebiasis in his series of 640 patients of which 29 were presented with hepato-pleural and bronchopleural fistula. Ferguson and Burford (1967) reported only 7 cases of hepato-bronchial fistula. In the aetio-pathogenesis, the disease process usually starts from liver either in the form of primary amoebic/pyogenic abscess, hydatid cyst or secondary abscess from obstruction

of biliary channel by stone, neoplasm, stricture. The resultant tension ultimately ruptures the abscess into the subdiaphragmatic and perihepatic space where it may be localised by surrounding inflammation. Local tissue reaction causes adhesion of lung with the diaphragm. On progression, the diaphragm is eroded at one stage and the abscess extends to pleural cavity to form empyema or to the lung to form lung abscess or hepato-bronchial fistula. Usually the lower lobe of right lung is affected, but in this case unusually the right middle lobe is affected. The penetrating trauma to liver or lung and liver both with subdiaphragmatic collection and subsequent infection may lead to similar sequelae.

Bile, an irritating liquid, causes intense inflammatory reaction of pleural space or bronchial tree or lung parenchyma that needs correct understanding and prompt management to minimise mortality and morbidity. When a fistula is formed, the diagnosis is easy from expectoration of bile and the patient is in danger of bile-drowning and severe pneumonitis. Any patient with billous effusion should have prompt thoracostomy. A more aggressive approach is required in broncho-biliary fistula. Early surgical intervention is necessary to prevent spread of infective process as well as chemical pneumonitis. And one should not forget to treat the primary cause of fistula.

The treatment principle is directed to the excision of fistula tract with lobectomy or segmental resection, repair of diaphragm by non-absorbable sutures, removal of primary cause and adequate drainage of subdiaphragmatic space, pleural space and liver. All diagnostic procedures and ancillary investigations to assess general and hepatic status are essential prerequisite for such a major surgery. The surgical approach is transthoracic with concomitant transdiaphragmatic, with or without transabdominal exploration. Adequate drainage in terms of site duration are the most important points for observation during post-operative management. Drain should be kept until all the drainage ceases. Perhaps the intrapleural route allows most dependent route of drainage and should be considered especially in posterior collections.

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A CASE OF MESENTERIC CYST.

M. A. Majid.

The ætiology of mesenteric cyst is rather contentious. However, the cysts themselves can be classified as—

1. Chylolympatic.
2. Enterogenous.
3. Urogenital remnants.
4. Teratomatous.
5. Hydatid.
6. Traumatic.

The chylolympatic variety is the commonest type. Frequently monolocular, it arises usually in the mesentery of the terminal ileum. The chylolympatic variety of mesenteric cyst has its blood supply independent of the blood supply of the adjacent gut.

CASE REPORT :

A five year old boy was admitted with the provisional diagnosis of an appendix mass (referred by his general practitioner) following four

days of right sided abdominal pain, nausea, vomiting and pyrexia. Past medical history was unremarkable except for 1-2 years history of recurrent right sided abdominal pain.

Examination on admission revealed that the boy was slightly pyrexial and he had a slightly tense, vaguely mobile mass in the right iliac fossa.

Routine hæmatological and biochemical screening were normal as was the bacteriological examination of his urine. Plain X-ray of abdomen showed a right sided soft tissue mass. I. V. U. showed upward displacement of the right kidney without any evidence of intrinsic lesion of the kidney itself. Ultrasound scan revealed a cystic mass in the right lower and mid-abdomen. It contained debris in some areas.

Because of persistent symptoms a laparotomy was performed. At operation a mesenteric cyst was found in relation to the terminal ileum. It

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appeared to be enterogenous in origin since it was very intimately adherent to the terminal ileum, apparently sharing the same blood supply. Therefore the cyst was resected with a small segment of the bowel, continuity being restored by an end-to-end anastomosis (Fig. 1). A normal

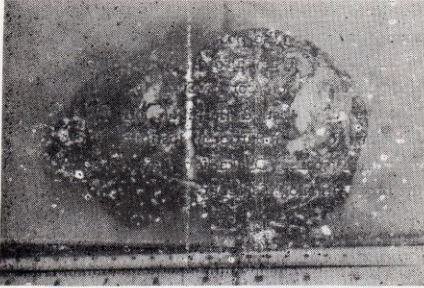


Fig. 1.

appendix was also removed. The child made an uneventful post-operative recovery and was discharged home well. Histology of the specimen is shown in Fig. 2.

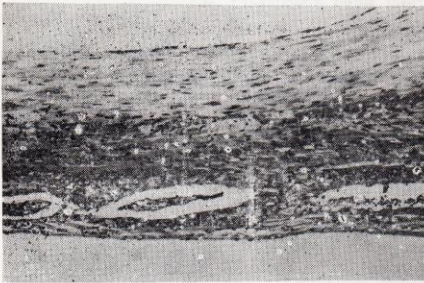


Fig. 2.

Discussion :

Mesenteric cyst was first described by Benevieni, a Florentine anatomist, on an autopsy

specimen in 1507. Tillaux was the first surgeon to resect successfully a mesenteric cyst in 1880. There have been so far 700 cases reported in literature, of which 25% occur in children. The incidence of complication in this age group is high. Common complications are intestinal obstruction, volvulus of the small bowel around the cyst leading to gangrene, perforation and peritonitis (Mollit et al). Other complications include ureteric obstruction (Walker and Putnam), intra peritoneal rupture of the cyst, hæmorrhagic ascites, rectal bleeding and malignant change.

Review of literature shows that the most common presenting symptoms are abdominal pain (sometimes acute), nausea and vomiting. It may frequently present as an asymptomatic abdominal mass.

Pre-operative diagnosis demands high index of suspicion by the clinician. Ultrasonography is diagnostic. Diagnosis may be aided by plain X-rays in two planes, the lateral film helping differentiation between mesenteric and omental cyst. I. V. U. is necessary to exclude a renal mass or any obstruction or deviation of the ureters. Large and small bowel contrast radiography is helpful in the absence of facility for ultrasonography.

Treatment consists in operative enucleation of the cyst when it is possible to do so without jeopardising the blood supply of the bowel adjacent to the cyst. When this is not possible, resection of the cyst with the segment of the bowel involved is a sound alternative.

The mortality in various series has been reported to vary between 20-50%. Cross reported a mortality of 16.6% in his series of patients of paediatric age group. This is disquietingly high for a benign condition like mesenteric cyst. Early recognition and surgery before complication should be our aim to reduce this unacceptable mortality.

Acknowledgement :

I am grateful to Mr. W. Sewell, Consultant Surgeon, City General Hospital, Stoke-on-Trent

for allowing me to operate on his patients and to report this case. I wish to thank Mr. D. R. Harper, Consultant Surgeon, Royal Infirmary, Falkirk for his helpful criticism in the preparation of this paper.

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College News

Recognition of Institutes for conducting FCPS Courses :

The Council of the BCPS in their last meeting in September 1983 has decided to recognise the following institutes for conducting different post-graduate courses in the subjects mentioned.

1. Dhaka Medical College & Hospital—FCPS Part II courses in Medicine, Surgery, Obstetrics & Gynaecology, Anaesthesiology, Radiotherapy and ENT diseases.
2. Chittagong Medical College & Hospital—FCPS Part II courses in Surgery and Obstetrics & Gynaecology.
3. Bangladesh Institute of Child Health—FCPS Part II courses in Paediatrics.
4. Armed Forces Medical Institute & its affiliated Institutes—FCPS Part II courses in Medicine, Surgery, ENT Diseases and Pathology.
5. Islamia Eye Hospital, Dhaka—FCPS Part II courses in Ophthalmology.

Recognition of training of Doctors in different Institutes for FCPS course :

The Council also decided to recognise the training of Doctors of the Dhaka Shishu Hospital in Padiatrics and BNSB Eye Infirmary & Training Complex of Chittagong in Ophthalmology.

Examination system :

The Council has decided to introduce a new syllabus for Basic Sciences in FCPS Part I examination as per recommendation of the workshop held on the subject.

The "Question Banks" has been formed for FCPS Part II & all MCPS examinations of BCPS and it was made effective from January 1984 examination.

The examination system has been further modified and clinical parts of FCPS & MCPS examinations will be conducted in different City Hospitals with effect from last January 1984.

Seminars and Scientific courses :

Orientation course for FCPS Part I examinees was held as usual during 1st 3 weeks of December 1983 on payment basis.

An international course in Obstetrics and Gynaecology was held in the Auditorium of the BCPS in November 1983 in collaboration with Obstetrics and Gynaecological Society of Bangladesh.

In the continuing Medical Education Programme the following speakers delivered their papers in the Auditorium of BCPS.

Dr. Harun-ur-Rashid, Assoc. Professor of Nephrology, IPCM & R, Dhaka—Recent Advances in Urinary Tract Infection, October 1983.

Dr. M. A. Jalil, Retired Professor of Ophthalmology—Xerophthalmia in Bangladesh, its prevention and treatment, November 1983.

Dr. Hedayetul Islam, Professor of Psychiatry, Sir Salimullah Medical College—Psychiatric problems encountered by Members of General Practice and other specialities, December 1983.

Brig. M. R. Chowdhury, Commandant, Armed Forces Institute of Pathology and Blood Transfusion—Coronary Atherosclerosis, January 1984.

New Fellows admitted :

The following Doctors are admitted as Fellows to the College after the examination held in January 1984.

Dr. Muhi Uddin Ahmed	Medicine
Dr. Manzur Morshed	Medicine
Dr. Md. Anisur Rahman	Medicine

Dr. Chulam Mahmood	Medicine	Dr. Md. Abul Kasem	Surgery
Dr. Shafquat Hussain Khundker	Surgery	Dr. Md. Shamsul Alam Chowdhury	Surgery
Dr. Md. Shahjahan Ali	Surgery	Dr. A. F. M. Matin	Surgery
Dr. Rashida Khatun	Obst. & Gynae.	Dr. Quazi Md. Qamar Uddin	Obst. & Gynae.
Dr. Ameena Majid Kamal	Obst. & Gynae.	Capt. (Retd.) Dr. Md. Serajul Islam	Paediatrics
Dr. Mumtaz Jahan	Obst. & Gynae.	Dr. A. K. M. Ahadul Bari	Anaesthesiology
Dr. Naseem Rashid	Obst. & Gynae.	Dr. Mohammed Maznoor Rahman	Anaesthesiology.
Dr. Khan Md. Moniruzzaman	Paediatrics		
Dr. Chowdhury Ali Kawser	Paediatrics		
Dr. Md. Israfil	Ophthalmology		
Dr. Shah Md. Bul Bul Islam	Ophthalmology		

Dr. (Mrs.) Farida Huq, MBBS., M. Phil., Ph. D., Head of Microbiology Division, Institute of Public Health, Mohakhali, Dhaka and Dr. Shahjahan Nurus Samad Chowdhury, MBBS., DA., Professor of Anaesthesiology, Dhaka Medical College were also admitted as Fellows (without examination) in February 1984.

New members admitted :

The following Doctors are admitted as members to the College after their examination held in January 1984.

The visit of Dignitaries :

Prof. J. A. Strong, Chairman, Edinburgh Post-Graduate Board of Medicine, UK visited the College in November 1983.

Dr. Geoffrey Walker of World Orthopaedic Association, London and Prof. F. A. Billson, University of Sydney, Australia visited the college in January 1984.

Journal price :

As per discussion in recent Annual General Meeting the Fellows who have paid their subscriptions up-to-date they will receive the Journal free of cost, others can procure it at the cost of Taka 25.00 (Inland) or U. S. Dollar 5 (Overseas).

[Continued from front inside cover.]

Chapter of book :

- Nixon HH: Intestinal obstruction in the newborn, in Rob C, Smith R (eds), Clinical Surgery, chap 16, London, Butterworth, 1966, p. 168-172.

Chapter of book that is part of published meeting :

- Natvig JB., Kunkel HC., Gedde-Dahl T Jr. : Chain sub-groups of G globulin, in Killander J (ed) : Gamma Globulins proceedings of the Third Nobel Symposium, New York, Wiley, 1967, pp. 37-54.
- Okamatsu T, Takayama H, Nakata K, et al : Omphalocele surgery, presented at the meeting of the Pacific Association of Pediatric Surgeons, San Diego, April, 1973.

Proofreading :

Contributors may be asked to proofread the galley proofs for typesetting errors. Important changes in data are allowed, but authors will be charged for excessive alterations in proof. Galley proofs should be returned within 24 hours.

Reprints :

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