Journal of Bangladesh College of Physicians and Surgeons

1. NO. 1. PAGES 1—33. AUGUST 1983.

CONTENTS

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Journal article, two or three authors :

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

[*Continued to page*]

Journal of
Bangladesh College of Physicians & Surgeons

VOL. 1. NO. 1. PAGES 1—33.

AUGUST 1983.

BANGLADESH COLLEGE OF PHYSICIANS AND SURGEONS

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CONTENTS

PERSONAL EXPERIENCE WITH SURGICAL CONDITIONS OF THE PANCREAS

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From 1971 to 1982, 33 cases of surgical conditions of the pancreas were treated. Of the 33 cases 18 were carcinomas and the rest were non-neoplastic conditions (Table-1).

TABLE No. 1

Type of disease	No. of cases	Percentage
Carcinoma pancreas	18	54·54
Peri-ampullary	(15)	(83·34)
Body & Tail	(3)	(16·66)
Pancreatic Pseudocyst	7	21·21
Pancreatic abscess & Pancreatic fistula.	5	15·15
Ch. Relapsing Pancreatitis	3	9·09
Total	33	

Cases diagnosed as acute pancreatitis and treated medically are not included in this series.

Carcinoma Pancreas

Incidence : Of the 18 cases of carcinoma pancreas 13 were male and 5 female, the youngest patient was 44 years of age and the eldest was of 72 yrs. Average age was 59·9 yrs. and the commonest age group was 51-60 years (Table-2).

TABLE No. 2

Age Group	No. of cases	Percentage
40-50	5	27·7
51-60	10	55·5
61-70	2	11 11
71-80	1	5·55

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Clinical presentation ;

Jaundice : Most of the patients (14) presented with progressively increasing jaundice. Some of them did not mention about pain but the others complained of mild to moderate degree of aching pain located in the epigastrium with occasional radiation over the back. None of the jaundiced patient reported any fluctuation from the onset.

Pain: 16 patients (with and without jaundice) had upper abdominal pain of varying intensity. 8 patients had referred pain to the back but on enquiry the other 2 patients also mentioned about occasional pain over the back.

Weight loss : Marked weight loss was complained by 4. 10 others had some degree of weight loss but the other 4 did not mention anything about the loss of weight.

Occasional diarrhoea was present in 10 cases and vomiting in 2 cases only. All the patients had complained of generalised weakness.

In all the jaundiced patients (14) gallbladder was palpable, but liver was palpable in 2 cases only. A palpable tumor apart from liver and gallbladder was palpable in 1 patient.

None of the patients had migratory thrombophlebitis or extra-abdominal

metastasis. Endocrine abnormalities, paraneoplastic syndrome were not present in any of the patients. None of the patients were associated with Thyroid or Breast neoplasm (Table-3).

TABLE No. 3

Symptoms and signs	No. of cases
Jaundice	14
Pain	16
Diarrhoea	10
Vomiting	2
Weight loss	10+4
Palpable gallbladder	14
Palpable liver	2
Ascitis	2

Laboratory Data

Inspite of marked weight loss in some of the patients (4), severe anaemia (35%) was present in 1 patient. Average haemoglobin percentage was 55%. Highest bilirubin level found was 20 mgm% and lowest was 8mgm% and the average was 11mgm%. In the barium meal X-Rays of the stomach and follow through duodenum, widening of the "C" curve was found in 8 cases and inverted 3 i.e. "ε" sign was present in one case and in 6 cases nothing definite was noted (Table-4.).

TABLE No. 4

Laboratory investigation	Result (in percentage)
Haemoglobin	
Maximum	70
Minimum	35
Average	55
Bilirubin	
Minimum	8mgm.
Maximum	20mgm.
Average	11mgm.

Pre-operative preparation and operation ;

Intra-muscular Vit. K was injected in all the patients with jaundice for 7 days. Average 2 units of blood was transfused preoperatively. During operation diuretic (Mannitol or Frusemide) was not given to any one.

In selecting the operative procedure feasibility of the procedure was judged not only on the basis of local condition but on the general condition also. Types of operation performed are shown in the Table-8, and the laparotomy findings are tabulated in Table 5 and 6.

TABLE No. 5

Tumor size	
Maximum	7cm. in diameter
Minimum	2cm. in diameter
Lymph Node	
Periportal	2
Coeliac axis	3
Peritoneal seedlings	2
Nodular liver with secondaries	3
Tumor posteriorly fixed with IVC & Sup. Mesenteric Vessels.	6

All the specimens after resection were sent for histopathological examinations.

TABLE No. 6

(Distribution of Carcinoma)

Site	No.
Periampullary and Head	10
Diffuse in the body	1
Diffuse in the pancreas	2
Diffuse in the pancreas and abdomen.	5

Discussion

Adenocarcinoma of the pancreas is usually a disease of late presentation. It's

prognosis is unrewarding even after treatment. 5 years survival rate is less than 2% which means that at the time of diagnosis almost all patients have overt or occult metastasis (a).

TABLE No. 7
(Histopathological Diagnosis)

Adenocarcinoma	6
Cystadenocarcinoma	1
Carcinoma of the ampulla	1
No evidence of malignancy	1

Billroth in 1984 and Finkel in 1900 reported to have performed total pancreatectomy. No details are available except that recovery occured (b). Both these operations antedated the discovery of insulin. The successful outcome means that a significant amount of pancreas was left (c). First authentic total pancreatectomy was done in 1943 by Rockey (d).

Two total pancreatectomies was done for diffuse resectable carcinoma pancreas. The first one in Sept. 1965 in Mymensingh Medical College Hospital and the other in P. G. Hospital in May, 1973. Both the cases had multiple malignant foci and were confirmed histopathologically.

The Mymensingh case had burst abdomen on the 6th Post-operative day and she developed manifestations of tetany which responded to intravenous calcium therapy. It's cause could not be ascertained. The patient expired on the 21st. day from gross fluid, electrolyte imbalance and infection

Recovery of the P. G. Hospital case was uneventful. "Enzar" was prescribed as exocrine supplement. This patient was stable with soluble Insulin (14+8+8). The average daily Insulin requirement of the first 7 survivors was 42 units (e) and the minimum recorded need of Insulin was 10 units (f).

One of the six patients who underwent Whipple's operation developed pelvic abscess. It was drained on the 9th Post-operative day by lower midline incision. Total Pancreatectomy is now preferred by many surgeons even for the treatment of carcinoma of the head of the pancreas for—

1. Carcinoma of the Pancreas is often multifocal in origin.
2. Low operative mortality.
3. Low aceeptable morbidity (as there is no pancreatico-intestinal anastomosis) particularly in relation to Diabetes.
4. A better cancer operation (i. e. more radical).
5. Reduces the incidence of metastasis through the pancreatic duct (g, h,).

TABLE No. 8
(Operations Performed)

Operations	No.
Whipple's	6
Total Pancreatectomy	2
Cholecysto-Jejunostomy + Gastro-Jejunostomy.	5
Distal Pancreatectomy	1
Laparotomy	4

For the treatment of unresectable pancreatic carcinoma—a five day course of 5-FU and Methotrexate, Vincristine and Cyclophosphamide are given within one month of diagnosis followed by intravenous bolous injection of 5-FU and Mitomycin daily for five consecutive days at 6 weekly interval

until death. The side effect is low. Median survival is 44 weeks in treated patients as opposed to 9 weeks in control (i).

TABLE NO. 9

(Account of post-operative events)

Operations	No. Done	Reported	Survived
Whipple's	6	4	9 months-7 yrs.
Total pancreatectomy.	2	1	21 days to 2 yrs. 2 months
Distal pancreatectomy.	1	1	1 yr. 9 months
Laparotomy	4	3	7 wks.-10 months
Gastro-Jejunostomy + Cholecystojejunostomy.	5	4	6 wks.-14 months

(The patient who reported after 7 yrs. it was periampullary Ca without any lymph node.)

NON-NEOPLASTIC LESIONS :

Pancreatic Pseudocysts

7 pancreatic pseudocysts were treated—4 male and 3 female. Youngest age was 24 yrs. and median age group 40-50 yrs. All the patients had a history suggestive of acute pancreatitis (2 weeks to 6 months before). Cholelithiasis was associated with only one case.

4 patients presented with persistent aching pain in the epigastrium without any radiation, unresponsive to antacid and had no relation with food. One patient presented with vomiting. It was projectile and occur immediately after taking food. Vomitus contained food material and bile also. The other two patients had the complain of anorexia and lump in the upper abdomen. None of the patients had Diabetes mellitus (Table-A).

TABLE No. A

Symptoms	No.
Epigastric pain	4
Vomiting	1
Anorexia	3
Abdominal lump	3

On examination lumps was detected in 3 patients. In one case it was in the umbilical region, smooth, cystic, immobile, of size about 2" x 2" and in the other two cases the cystic lumps was ill defined occupying a large area. Signs of chronic dehydration was present in one case only.

Serum amylase was elevated in all cases even in the patient who had acute abdomen 6 months before. Barium meal X-Rays of the stomach and duodenum showed widening of the "C" curve with indentation on the antrum in one patient. Indentation on the greater curvature with forward displacement of the stomach in one case and in the other case there was indentation in the lesser curvature and the stomach was pushed to the left. In the other case no abnormality was detected in the Barium meal.

After pre-operative assessment and preparation laparotomy was done in all the cases. per-operative findings are shown in the Table-B.

TABLE No. B

Site of the cysts	No.	
Lesser sac	5	
Head of the pancreas	1	(True cyst)
Transverse mesocolon	1	
Content of the Cyst		
Barley water like.	4	
Serosanguinous	1	
Thick-inspissated pus like	2	

In all the cases scattered calcification were present. Operations performed are shown in Table-C.

TABLE No. C

Operation	No.
Cysto-gastrostomy	5
Cysto-duodenostomy	1
Simple drainage (External)	1

Post-operative period was uneventful except in the case of external drainage. It took 15 days to heal the tract leading from the cyst to pariety and there was no skin excoriation.

Discussion

No surgical intervention should be made during the first week in uncomplicated cases (j) as cyst wall maturation is in part time dependant. Additional advantage of delaying is spontaneous resolution (k). About 50% of acute pseudocyst will resolve without treatment (j).

Surgical treatment of pancreatic pseudocysts are—

1. Marsupialization,
2. Drainage
   External,
   Internal.
3. Excision and drainage,

The objection to marsupialization is for certain hazards like painful skin excoriation, loss of fluid and digestive enzymes, fistula formation and recurrence of the cyst (l). But the operation is effective in the early treatment of pseudocyst of infective or traumatic origin i.e. before the formation of cyst wall. In multilocular cysts and cysts with ductal communication external drainage should not be done. Simple external drainage may have the same hazards of marsupialization. If the procedure is to be carried out slow suction drainage is the best and the surrounding skin must be protected by appropriate skin dressings. For the internal drainage—the part of Gastro-intestinal tract to be anastomosed is decided by the site and size of the cysts. For cysto-jejunostomy Roux-En-Y is the preferred treatment. The interior of the cyst should be examined for evidence of a tumor. Per-operative cystogram or per operative E.R.C.P. help to delinate the anatomy (m).

Chronic Relapsing Pancreatitis

Three cases were treated. One of them was of age 20 years and was of average build. He came with the complain of episodic colicky pain in the right upper abdomen without any radiation or any relation with food for 4 years. There was no history of persistent diarrhoea. He was not alchoholic. One year before he underwent operative treatment but the patient failed to show any record. All routine laboratory examinations were within the normal limit. Barium meal X-Rays showed gastrojejunostomy (normally functioning stoma).

On laparotomy it was found that the pancreas was cord like, fibrotic and nodular from head to tail. Nothing was done.

The second patient (45 years male) presented 10 years after gastro-jejunostomy with dull aching persistent pain in upper abdomen for 14 years. The pain is almost persistent for the last two years with occasional radiation to the back.

Routine laboratory examinations did not show any abnormality. Plain X-Ray of

abdomen showed radio-opaque shadows in the pancreatic region. The case was diagnosed as Chronic pancreatitis.

On laparotomy pancreas was found firm and fibrosed. Stones could be palpated through it's anterior surface. The previous anastomosis was dismantled. Stones were removed after opening the duct through longitudinal slit. Puestow's operation was done.

On the sixth postoperative day the patient had severe abdominal pain and he needed pethidine 6 hourly. The abdomen was soft and not tender. Bowel sound was present. Subsequently he developed tetany. Some of the episodes were accompanied with cyanosis. Abdomen became silent and distended. The patient expired on the 8th day.

In the third case, during Cholecystectomy, it was found that the whole pancreas was found to be oedematous and indurated at places. She was middle aged and was operated in March 1973. For the last six months she is complaining of postcibal epigastric pain, indigestion, flatulence, intolerence to fatty food and occasional constipation. A plain skiagram of abdomen showed extensive pancreatic lithiasis. A recent thorough clinical examination shows symptoms are still mild and she is under observation.

Discussion

The etiology of chronic pancreatitis is yet to be determind. In some cases it is considered as a continuation of the progression of acute pancreatitis. Other additional factors may come into play to cause recurrent insults.

There are many surgical procedures starting from gastro-intestinal diversion, vagotomy to total pancreatectomy for this condition.

Indications for operation in chronic pancreatitis (n) are—

1. Intractable pain uncontrolled by medical treatment.
2. Complications like cyst formation.
3. Suspected malignancy.

Partial pancreatectomy is advised for localised chronic pancreatitis. Pancreaticoduodenectomy is recommended by most workers for patients with chronic pancreatitis with multiple strictures, cysts, or calculi localised in the head of the pancreas (o).

After comparing the results of various distal resection (40-80%, 80-90%) on endocrine and exocrine functions and their complications, it is advocated that distal resection should be limited to 80% whenever possible (p).

No active surgical measure was taken in the first case as there was no digestive or metabolic dysfunction and the pain was not unberable. He is under observation.

Pancreatic Abscess and Fistula :

5 cases of pancreatic abscess and fistula were treated—3 male and 2 female. Four were of middle age group (35-45) and the other was only 20 years old. In all the 4 cases tender upper abdominal lump followed a history of acute abdomen (3-4 weeks before). All the patients had swinging temperature ranging from 100°F-103°F, poly morph leukocytosis, and elevated serum amylase level. None of them was diabetic. (Table No. D.)

TABLE No. D

Clinical Features	No.
Swinging temperature	4
Pain in the abdomen	4
Discharging sinus	1
History of acute abdomen	5
Ill defined, tender upper abdominal lump.	4
Polymorph leucocytosis	4
Progressive anaemia	3
Per-Operative	
Incision—Upper-midline	4
Site of the lump	
Below the stomach and neck of Pancreas.	1
Behind the stomach and Gastro-colic omentum.	2
Around the tail and pointing between Greater omentum and Transverse colon.	1
Operation done	
Drainage of abscess with indwelling catheter.	4
Post-operative	
Complete resolution	1 (4wk. time)
Fistula developed	3
Findings of fistulogram	
Proximal pancreatic duct stricture	1
Fistulous communication with duct and Transverse colon.	1
Subsequent operation	
Pancreatico-jejunostomy (Duct stricture). (Roux-En-y)	6 wks. after
Pancreatico-Jejunostomy (Roux-En-y). Nothing was done with colonic fistula.	8 wks. after

The 20 years old patient was operated upon with the diagnosis of acute appendicitis. Appendix was approached through a classical Grid-Iron incision, but the appendix was normal. Then a right paramedian incision was made and acute pancreatitis was diagnosed. This patient was admitted in DMCH for a persistent fistula—15 days following operation. The discharging sinus appeared on the 10th day. The discharge was crystal clear and odourless, amounting about 30-40 ml. per day. Sinogram revealed a tract about 10 cm. long extending from right iliac fossa to the left of the lower border of the 2nd lumbar vertebra.

A catheter was put in the tract which was gradually withdrawn. No special dressing was applied to protect the skin. It took about a month to heal the tract completely.

Follow-up

All the patients survived operation, None of the patients had skin excoriation. One of the patients had jaundice, after draining the abscess it abated but she developed tetanus. She recovered and was asked to come after 3 months but never came back. Patients with anastomosis are doing well.

Discussion

Surgery is generally contraindicated in uncomplicated acute pancreatitis (q). The aggressive surgical manipulation used in late 1920 had very high mortality rate. The mortality rate was directly proportional to the extensiveness and duration of operation (r). Moreover the patients were operated upon without adequate preparation with regard to fluid replacement and other

supportive care. Non surgical treatment is justified because—

1. The disease is not infectious in origin.
2. The peritoneal exudate is not toxic when injected intraperitoneally or intravenously in experimental animal.
3. The areas of fat necrosis are harmless.

Early surgical treatment is reserved for those patients in whom—

a. Diagnosis is in doubt.
b. Suppuration is present or suspected.
c. Mechanical obstruction of biliary tree is evident and
d. Cystic accumulation is demonstrable (s).

Acosta (t) concluded that early operation on biliary tree does no harm to patients with mild gall-stone pancreatitis and aborts serious complications of those with more severe pancreatitis. All patients with gall-stone pancreatitis should be operated with in 48 hrs. after the onset of the symptoms. At operation cholecystectomy and common duct exploration should be performed (u). Passage of instrument through the ampulla should be avoided (v). In acute pancreatitis not responding to medical treatment, after laparotomy necrotic pancreas and other non-viable tissue should be removed. Peritoneal dialysis is often helpful in managing such a case.

Pancreatic abscess—the dreadful complication of acute pancreatitis if not treated promptly, virtually results in 100% mortality (w). An transabdominal approach is best. Necrotic debris should be removed and external drainage should be done. Internal drainage usually is not feasible (x). Most of the pancreatic fistulas close spontaneously, hence considerable time must be elapsed before taking an operative procedure. The guiding principles for the conservative management are—

1. Protection of skin.
2. Maintainance of fluid and electrolyte balance.
3. Supplementary support to digestion and nutrition whenever necessary.

The essential requirement in the management of fistula is constant low pressure suction. Complete and constant exposure of the opening may detect failure in the suction apparatus immediately. Anticholinergic drug is probably of no use to affect the rate of closure of these fistulas.

Conclusion

The foregoing description is in brief my personal experience with various surgical problems of the pancreas which I came accross from January '71 to December 1982 of my hospital attachment. In no way it reflects the overall incidence of pancreatic diseases in our country. Never the less it may be said from individual experience that the incidence of acute pancreatitis is not an infrequent condition at present. The incidence is higher in urban areas than in rural areas and whatever form of treatment is made available to these patients, mortality and morbidity from this diseases are high.

This series does not include cases of acute pancreatitis treated conservatively. It may not be out of place to say few words

about the management of acute pancreatitis. Clinical suspicion is the most important diagnosis in this country at present. Seldom correct guidance and help is available from enzymatic study. Diagnostic paracentesis has been used in the evaluation of acute abdomen and suspected acute pancreatitis. Volume and character of aspirated fluid, amylase content and WBC count of fluid are too variable to provide positive support for the diagnosis but it may help to exclude the other causes of acute abdomen viz. perforation, hemoperitoneum etc. If a reasonable diagnosis is ascertained the treatment of acute pancreatitis is essentially conservative.

Sometimes some of these cases will proceed to pseudocyst or abscess formation or may cause hemorrhage. These complications often require surgical measures in the form of drainage—internal or external. One of the notorious complication that may follow evacuation and drainage of pancreatic abscess is formation of a pancreatic fistula and when such a fistula has a communication with main pancreatic duct, chance of spontaneous healing of such a fistula is remote. Such pancreatic fistula (2 in this series) is treated by internal drainage in the form of pancreatico-jejunostomy .Roux-En-Y type of anastomosis has been considered better and has been used in both the cases successfully. The role of retrograde sinogram to evaluate the type of fistula is very valuable. Minor duct fistulas or peripancreatic fistula often heal spontaneously (3 in this series).

Regarding the malignant tumors of the pancreas my observation is identical with others dealing with this problem. The patients quite often report so late that the tumor is inoperable either due to local fixity or distant spread of the tumor. This is a very distressing illness due to jaundice, itching, pain and ascitis. Of the 18 patients we explored only 8 patients were found suitable for radical operation including 2 for total pancreatectomy.

Postoperative mortality is high and to a great extent related to the skill and experience of the surgeon. The other unfortunate aspect of radical surgery is the poor prognosis particularly for that of the head of pancreas. Of the 6 cases resected in this series there is only one case of periampullary carcinoma in this series, still surviving in good health for 7 years. Other cases died between 6 months to 2 years after surgery.

With the wider use of ERCP, PTC, ultrasound and percuteneous aspiration biopsy earlier diagnosis and earlier surgery will likely follow and this may brighten the operative result in pancreatic neoplasm.

BIBLIOGRAPHY

a. *Cartar D. C. :* Surgery for the pancreatic Cancer ; Br. Med. Jour. 1980 ; 744-46.

b & c. *Cattel & Warren:* Surgery of the pancreas, W. B. Saunders Company, Philadelphia and London, 1954 ; P-338.

d. *Rockey, E. W. ;* Total pancreatectomy for carcinoma, case report. Ann. Surg., 118 ; 603-611 (Oct.) 1943.

e. *Gaston, E. A. :* Total pancreatectomy. New Eng. J. Med., 238:345-354.

f. *Cattel & Warren ;* Surgery of the pancreas. W. B. Saunders Compamy, Phil. and Lond., 1954 ; Page 345.

g. *Michael Knight, Rodney Smith :* Operations on pancreas, Operative Surgery, Fundamental International Technique, Abdomen Vol., page 271.

h. *Jonathan, A; Van Heerdin, et al.* : Total pancreatectomy for ductal carcinoma of pancreas. Mayo Clinic Experience. Am. J. Surg. Sept. 1981. Page-308.

i. *Mallinson C. N., Rake et al ;* Chemotherapy in pancreatic Cancer : Results of a controlled perspective randomised multicentric trial ; Br Med. Jour. : 1980 : 281 : 1589 91.

j. *A.J Harding Rains and H. David Ritchie :* Bailey & Love's short practice of Surgery. E.L.B.S.: 17th. Edn. : Page-921.

k. *Pollak E W., et al :* Pancreatic pseudo-Cyst—management. Am J. Surg.

l. *Cattel & Warren :* Surgery of the Pancreas ; W. B. Saunders Company, Phil. and Lond. : 1954 : page 174-175.

m. *Howard A Reben, Lawrence W. Way, ;* Pancreatic pseudoCyst : Current Surgical Diagnosis & Treatment, 4th. Edn., Lange Publications : page 566.

n. *Cattel & Warren ;* Surgery of the pancreas. w. B. Saunders Company : Phil. and Lond. : 1954 : page-103.

o. *Sato T. et al.* : Appraisal of operative treatment for Chronic pancreatitis : Am. J. Surg. : 1975 : 129 : 621

p. *Sato T. et al* : Followup result of surgical treatment for chronic pancreatitis, present status in Japan : Am. J. Surg. 1981 : 142 : 321-322.

q. *Howard A. Reben, Lowrence W. Way* : Acute pancreatitis : Current Surgical Diagnosis & Treatment, 4th Edn., Lange Publications : page 563.

r. *Cattel & Warren* : Surgery of the pancreas : W. B. Saunders Company : Phil. and Lond. : 1954 : page 81.

s. *Frey F. Charles* : Gallstone pancreatitis : The Surgical Clinic of North America : Aug., 1981 : 61 : page 931-933.

t. *Acosta JM et al.* : Early surgery for acute gallstone pancreatitis ; Evaluation of a systemic approach : Surgery : 83 : 367, 1978.

u. *Cattel & Warren* : Surgery of the pancreas : W. B. Saunders Company : Phil. and Lond. : 1954 : page 82.

v. *De Jode LRJ* : Management of acute pancreatitis : Br. J. Cl. practice 34 ; No. 2, Feb. 80.

w. *Teresa et al* : Use of Indium ^{111} lebeled autologous leucocytes in differentiating pancreatic abscess from psuedocysts : Am. J. Surg. 1981 : 142 : page 312.

x. *Cattel & Warren* : Surgery of the pancreas : W. B. Saunders Company, Phil. and Lond. : 1954 : page 78, 79, 219-220, 323-324.

EVALUATION OF RISK FACTORS OF ISCHAEMIC HEART DISEASES IN HOSPITALIZED PATIENTS

K. M. H. S. Sirajul Haque [1]
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Monwar Hossain [3]

Summary : 42 patients of Ischaemic heart disease with mean age 53·33 years (± SD 13·21), admitted in the cardiology unit of the Institute of Postgraduate Medicine and Research Hospital, Dhaka during the period from July to December, 1982 have been studied for evaluating the risk factors in coronary atherosclerotic heart disease. Male patients were 85%, and female were 15%. All the patients were above 30 years. Vulnerable age group 40-60 years, worse was 50-60 years (average being 53·13 years). In this study 61·9% were found to be smokers. Hypertension and hypercholesterolaemia were important risk factors constitutiug 23·8% and 26·19% respectively. Association with obesity was 19·4% and diabetes mellitus 11·9% 19% patients were of type A behaviour pattern Only 10% cases gave positive family history of ischaemic heart disease. 2 patients in this study were found to be alcoholic.

Introduction :

Majority (99%) of the Ischaemic heart disease is due to coronary artery atherosclerosis [1]. Pathogenesis of atherosclerosis is yet to be well understood. Incidence and prevalence of coronary artery atherosclerosis has been found to be associated with a variety of factors which are involved in the development and clinical manifestation of the disease. Prediction of probability of developing the disease in a given individual or population is possible by evaluation of such risk factors by prospective epidemiological studies. In this study an endeavour has been made to evaluate the risk factors of ischaemic heart disease in hospitalized patients.

Risk Factor :

Risk factor can be defined as the personal characteristics of an individual which is associated with greater than average probability of developing cornary artery disease [2].

Materials and Methods :

42 Ischaemic heart disease patients admitted in the Cardiology Unit of Postgraduate Hospilal of Institute of Postgraduate Medicine and Research were included in this study. WHO Criteria were used to diagnose the cases. WHO Criteria for diagnosis are :

a) For Acute Myocardial Infarction (AMI) [3] :

1. History of chest pain compatible with AMI.

1. Associate Professor of Cardiology, IPGMR, Dhaka.
2. Assistant Registrar, Cardiology Unit, IPGMR, Dhaka.
3. House Staff, Cardiology Unit, IPGMR, Dhaka.

2. Abnormal Q wave or s rial ST-T changes.
3. Appropriate rise in Cardiac Serum enzyme level twice the normal or more.

b) For Angina Pectoris (AP)[4] :

1. Convincing history of angina.
2. E. C. G. changes.
3. Previous Infarction.

Detailed history was taken with special reference to age, sex, family history of heart attacks, diabetis mellitus, smoking, Socio-economic status and personality type. Each patient was examined thoroughly for clinical detection of weight, xanthelesma, hypertension, smoking stain on fingers. Self reported smoking history was taken. Single cigarette per day was even taken into account. Smoking habit was graded as heavy smoker (Smoking 20 cigarettes per day) and light smoker (less than those)[5]. Hypertension has been designated as a BP of 160 mmHg systolic or above and/or 95 mmHg diastolic or above[4]. Fasting serum cholesterol above 260 mg/100 ml (6·8 mmol/L) was taken as abnormaly high level[6]. Lipidogram (Serum lipoprotein analysis) was done in 17 cases with electrophoretic methods. Diabetes mellitus was designated when fasting blood sugar was found to be 7 mmol/L or above and/or blood sugar 2 hours after breakfast was 10 mmol/L or above[7]. Blood sugar was estimated by Follin WU copper reduction method.

Socio-economic classification : Occupational classification was done based on classification of British General Registrar Office.

A man with competitiveness, aggressiveness and pressure of timing and work was taken as type A and more relaxed as Type B[9]. A person was taken to be obese when body weight was 10% or more than desired weight.

Results :

Spectrum of disease: Out of 42, patients were admitted with acute myocardial infarction and 2 with angina pectoris of effort. All our patients were above 30 years of age. Maximum incidence was in the age group 51-60 years (35.71%). Next in order was the age group 30-40 years (26·19%) (Table-I). 85% of the sufferers were male. Relative risk of cigarette smoking was 61·90%. Hypercholesterolaemia and Hypertension respectively were 3rd and 4th major risk factors (Table-II).

TABLE I.

Age incidence in Ischaemic Heart disease.

Age (years)	Male	Female	Total	Percentage.
30-40	11	0	11	4·62
41-50	8	0	8	19·04
51-60	10	5	15	35·71
60 above	7	1	8	19 04

TABLE II.

Relative risk of different factors in Ischaemic heart disease.

Factors	Number of patients (Total 42)	Percentage.
Male sex	36	85·00
Hypertension	10	23·80
Cigarette smooking	26	61·90
Hypercholesterolaemia	11	26 19
Diabetes mellitus	5	11·90
Obesity	8	19·04
Higher socio-economic condition.	8	19·04

Incidence of ischaemic heart disease among smokers was in direct proportion to the number of sticks taken per day (Table-III).

TABLE III.

Relation of Ischaemic Heart disease with the number of Cigarettes taken per day.

Cigarettes per Day.	CAHD	AMI	APE	PIA	%
None	9	8	1	0	21·42
20/Day	22	20	1	1	52·38
20/Day	11	10	0	1	26·19
	(Total 42 patients)				

With heavy smoking the maximum incidence was in the age group 35-55 years. Incidence in this group varied with the number of sticks taken per day (Table IV).

TABLE IV.

Relative risk of Ischaemic Heart disease to age and number of cigarettes per day.

Cigarettss per day	Average incidence			
	35-45	45-55	55-65	65-76
None	0	2	4	3
20	10	7	4	1
20	4	1	3	3

On serum lipid analysis 17 patients were found to have higher fasting serum cholesteral and 10 had hyper pre-Beta lipoproteinaemia (Table-V). When combination

TABLE V.

Relation of serum lipid with Ischaemic Heart disease.

(Total number of patients 42.)

Parameters	No. of patients.	Per-centage.
Hypercholesteroleamia	17	40·47
Hyper pre-beta lipo-proteinaemia.	10	23·8

of risk factors was considered 8 (19%) had combination of smoking and Hypercholesterolaemia and 6(14%) had combination of smoking and hypertension (Table-VI). A

TABLE VI.

Risk of Ishaemic Heart disease according to combination of risk factors.

Combination risk factors.	No. of patients.	Per-centage.
Diabetes mellitus + hypertension.	2	4·70
Diabetes mellitus + smoking.	1	2·35
Hypertension + smoking	6	14·00
Hypertension + smoking + diabetes melitus.	1	2·35
Diabetes melitus + hypercholesterolaemia.	0	0·00
Hypertension + hypercholesterolaemia.	2	4·70
Smoking + hypercholesterolaemia.	8	19·00
Hypertension + hypercholesterolaemia + smoking.	1	2.35

linear relationship was found between the number of risk factors and incidence of Ischaemic heart disease upto a combination of 5 factors. Incidence of Ischaemic heart disease decreased with combination of 6 factors (Table-VII).

TABLE VII.

Risk according to number of factors.

No. of riskfactors,	No. of patients.	Percentage
1 (One)	1	2·38
3 (Three)	4	9·52
4 (Four)	10	23·80
5 (Five)	12	28·57
6 (Six)	4	9·52
Total	42	100

Discussion :

Ischaemic heart disease is the most useful indicator of atherosclerosis available today[10]. Practically consideration of atherosclerosis focuses on Ischaemic heart disease. In fact, all patients of Myocardial Infarction diagnosed by ECG and enzyme changes have coronary atherosclerosis with some rare exceptions like congenital anomalies of coronary vessels, emboli, osteal occlussion due to cardiac or vascular disorder. Atherosclerosis is by far the most important killer in the developing countries (though not leading) affecting the man in the prime of his life.

A prospective study seems ideal for prediction of ischaemic heart disease in a given individual or group of population. No such study has yet been reported in the country. In this study an attempt has been made to find out the association of risk factors in established hospitalized cases of ischaemic heart disease.

Age. In this study incidence of Ischaemic heart disease was found to be more in middle and elderly age groups being 35% in 50-60 years age group and 19% in 41-50 years age group. Mean age was 53·33± 13·21 years. In the younger age group (31-40 years) incidence was only 5%. None was below 30 years. Above 60 years incidence was only 19%. In a study in Pakistan Pirzada and Khan (1962) reported the incidence in younger age group to be 12·2%, Beg et al found in 19 3%, Ibrahim et al [11], in Dhaka found in 25% of cases. In India a study [12] reported that the incidence in young was 18·2% in male and 6·4% in female. He found the incidence mostly in the age group 41-60 years. 31·2% in the age group 41-50 years and 23 7% in the age group 51-60 years. Incidence in our study partially agrees with other studies that it increases in middle age group.

Sex : The incidence of Ischaemic heart disease was more in male than in female. In this study 86% of the patients were male and male female ratio being 6: 1. All the female were above 50 years age and at menopause. The study of Call Bengtsson[13] showed that the incidence of Ischaemic heart disease in Goteberg was 8 times more in males than females in all the age group but in this study it was shown that incidence of myocardial infarction in female was more after the age of 50 years. Walter D. D.[14] found that the incidence of Ischaemic heart disease in woman was 7%. Vakil[12] reported that the incidence in male was 78·8% and 21·2% in female. Sex ratio varying from 4 2 : 1 to 6·6 : 1 have been reported by many Western Workers (Clawson, 1941, Blanel and While 1941, Feil 1964). In a study by Malhotra and Pathania[17] sex ratio was found to be 6·7 to 1 and 3·7 to 1 by Vakil et al[12]. Ibrahim et al[11] described a ratio of 20 : 1 in Dhaka, Rab et al[18] reported a ratio of 12·9 : 1. In Pakistan Pirzada and Khan (1962) showed a ratio of 6 : 1. This study showed that the incidence of ischaemic heart disease in female is low and it increases after menopause which is consistent with the finding of call Bengtsson study[13] that showed that incidence of ischaemic heart disease increases after menopause.

Smoking ; In this present study 26 patients were smokers comprising 61·90%.

Although this result has similarity with Antone F. Salel et al (1973) and also with Framingham study[2], the firm conclusion cannot be drawn because the similar incidence of smoking habit (66%)[14] was found in hospitalized patients in general. 52 38% were heavy smokers and 26·19% were mild to moderate smoker in this series.

Hypertension : Hypertension became an important risk factor in 10 patients constituting 23·8% while the incidence of hypertension being 2%[15] to 3·7%[16] in general population whereas Malthora et al[17] and Rab et al[18] observed hypertension as risk factor 36% and 26% respectively.

Diabetes Mellitus : Diabetes Mellitus was found in 5 patients constituting 11·9% of the series in the prevalence of diabetes mellitus of 1·07%[16] to 1·7%[20] in the general population above the age of 15 and 30 years respectively. This supports the fact that diabetes mellitus is one of the important risk factor. The observation of Rab et al[18] was 9·9% and Waltar D. D. et al[21] was 19%.

Hypercholesterolaemia : Of the 42 patients, 17 (40·5%) showed high level of cholesterol. Maximum limit of normal was taken to be 6·8 mmol/L (260 mg%). Lipid profile was done in 26 patients of which 10 showed hyper Beta-lipoproteinaemia. Wood et al (1972) studied 1,128 cases, between 25-72 years age and type-IV lipo proteinaemia was found as the most common abnormality. In our country, a study was done in which type-IV hyper-lipo proteinaemia was found in the majority of the cases[8].

High socio-economic condition : It is usually regarded to be associated with ischaemic heart disease in men. High income group may be associated with ischaemic heart disease attributable to such factors, like consumption of the increased fat in diet, sedentary habit, smoking etc. In our study, 19% cases were found to be in higher status of society who were found to take diet rich in animal fat. This findings partially agrees with the study of Framingham Keys, Taylor A. et al. Antone F. Salel et al showed that the obesity was associated with ischaemic heart disease in about 50% cases. In our study we got only 19% cases to be obese.

Type A behaviour : 19% cases of this series had type A behaviour.

Combination of risk factors : Combination of increased number of risk factors usually increased the incidence of ischaemic heart disease. But in certain combination there is rather decrease in the incidence. This is explained by the fact that some combination probably have inhibitory effect on the causation of the disease[5].

Large scale community based prospective study should be carried out for identification of risk factors in the respective country's socio-economic condition which can be modified or avoided by taking up appropriate health measures.

BIBLIOGRAPHY

1 *Sokolow and Mcilroy,* Clinical Cardiology 2nd Edition, p-124. 1979.

2 *Gordon Tavia, Kannel William B,*: Multiple risk functions for predicting coronary

heart disease, the concept accuracy and application : Am. H.J. 103, 6, 1031, 1982.

3 *WHO* report on working group on ischaemic heart disease registrar Annex-1 : 27-32 : 1971.

4 *WHO* Technical report series 231, 1962.

5 *Coronary artery disease*, American Heart J, 101 : 3 : 323, March, 1981.

6 *Chowdhury*, J.A., CHest pain : DISSERTATION—'82, IPGM & R.

7 *WHO* Technical report series, 646, 1980.

8 *Malik* A, et al, 1983 (Unpublished).

9 ***Sokolow*** & *Mcilroy*, Clinical Cardiology, 2nd Edition, P-129, 1979.

10 *Edwin, L. Bierman*; Atherosclerosis and other forms of arteriosclerosis, Harrison's principles of Internal Medicine, 9th Edition.

11 *Ibrahim M, Mottaleb & Borua*, H. R., Clinical Pattern of Ischaemic heart disease in East Pakistan PJMA, 5(1) 24, 1966.

12 *Vakil*, R. J., Ischaemic heart disease in India. BMJ, 25 : 1963.

13 *Bengtsson*, Call et al, Ischaemic heart disease in woman; Goteborg, 1973.

14 *Rashid H*; Smoking habit among different social classes – A preliminary study, 1983 (Unpublished).

15 *Waliullah ;* Hypertension in a mixed community : Bangladesh Medical Research Council Bulletin. II : 2, 95, 1976.

16 *Islam N., Janan F. A. J.*, N. Akhter Chowdhury, Zaheduddin Ahmed and Mathura K. C. ; Hypertension in Secretariate population of Bangladesh, Bangladesh Medical Research Council Bulletin, 1979, V. 1 : 19-23.

17 *Malthora, R. P.* and Pathonia N. S., Some etiological aspects of coronary heart disease, Br. Med, J : 2: 528, 1958.

18 *Rab S.M.*, Quaderi M.A., Chowdhury S. G.M.; A Study of coronary artery disease in East Pakistan, J.P.M.A., 17: 8, 1964.

19 *Mahtab, H., Ibrahim M.*, Banik N. G., Gulshan-E-Jahan, Hoque F. and Ali S. M. K.; Diabetes Detection Survey in a rural and semi-urban Community in Bangladesh, International Symposium on Epidemiology of Diabetes Mellitus, May 20, 1982.

20 *Mahtab H., Ibrahim M., Banik N. G.*, Gulshan-E-Jahan and Ali S. M. K.; Diabetes Detection Survey in two Textile Mills in Bangladesh, Diabeiic Association of Bangladesh, Shahbagh Avenue, Dhaka-2.

21 *Walter D. D.* et al; Coronary artery deseaes in young women, Clinical angiographic feature and corelation with risk factors, Am. J. Cardiology 42(I): 41-7, July, 1978.

PATTERN OF SURGICAL INFECTION AT CHITTAGONG MEDICAL COLLEGE HOSPITAL

Syed Loqueman Ali *
A.N.G. Ahmed Khan *

Introduction

Surgical infection, as was studied by Louis Pasteur and Joseph Lister, hundreds of years ago is still a matter of controversy and discussion all over the world. Different workers in this field have given their own thoughts and ideas for the control of infection.

We in CMC Hospital also undertook a study in this subject in surgical unit-I (ward-5) between February and May '83.

In our study, we have tried to find out few of the causes and worked in our own way to solve some of the problems related to wound infection.

Materials and Methods

We have studied 100 random cases in Chittagong Medical College Hospital, Surgical unit-1 (ward-5) in a period from Feb. to May '83. We have also investigated different sources of infection in this Hospital.

Swabs were taken for culture and sensitivity from :

Suspected wounds,
Instruments and other articles on ward and Operation theatre,
Operation tables,
Floor and wall scrappings of operation theatre,
Hot saline supplied during surgery.

A study was also made on the nature of chemoprophylaxis and its uses and abuses.

For better description, we have divided the wounds into 4 categories.

1. Clean wound (No contamination)e.g, Hernia, Thyroid etc.
2. Clean contaminated (Lightly contaminated) wound e.g. Gastric surgery, Appendicitis etc.
3. Contaminated (Grossly contaminated) wound e.g. perforation, Burst appendix etc.
4. Infected (Primarily infected) wound, e.g. Abscess, Pyothorax etc.

Results

Infection Rate

Out of 100 cases, 14 were primarily infected and 32 were secondarily infected. Of these 32 infected cases 11 were stitch abscesses and 21 were grossly infected of which only 4 required secondary stitch.

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Following is an account of rate of infection in various types of wound in CMCH Surgical unit-1 (Feb.-May '83).

TABLE 1

Rate of infection in various types of wound.

Types of wound.	No of cases.	%	Infected		Not infected	
			No.	%	No.	%
Clean	20	23·2	5	25	15	75
Clean contaminated.	35	40·7	10	28·6	25	71·5
Contaminated	31	36·1	17	54·8	14	45·7
Total	86	100	32	37·3	54	62·7

The rate of infection especially in 'clean' cases is much higher than in any standard.

Source of Infection

The commonest source of infection is contamination from operation theatre and ward, mainly due to :

(a) Faulty aseptic technique in OT and ward—

OT environment, even surgical articles are often contaminated, (as proved by culture and sensitivity test of swabs taken from different sources in Operation theatre) and common organisms found to be resistant strains of Staph. aureus.

Dressing materials and instruments used in the ward are often contaminated as proved by repeated culture and sensitivity test and common organism is a resistant strain of Gm.—ve bacilli (E coli).

(b) Overcrowding of patients (average 10-14% excess patient/day, as proved by the Hospital registry) and attendents in the ward.

Organisms Causing Infection

Most of the wound infection are caused by Staph. aureus (Table—2) and in almost

TABLE 2

Organisms commonly causing infection in different types of wound in CMCH Hospital.

Name of the organisms.	Clean cases.	Clean-contaminated cases.	Contaminated cases.	Infected cases
Staph. aureus	60%	70%	88·2%	78·6%
E. coli	20%	0%	5·9%	0·0%
Mixed (Gm.+ve. Gm.—ve.)	20%	30%	0·0%	0·0%
Streptococci	0%	0%	0·0%	7·1%
Ps. Pyocyaneus	0%	0%	5·9%	7·1%
Proteus	0%	0%	0·0%	7·1%

all cases they are resistant to usually hospital supplied antibiotics (Table—3).

TABLE 3

Sensitivity of various Drugs.

Name of the drugs	Sensitive	Resistant.
Penicillin	12%	88%
Ampiciliin	40%	60%
Co-Triomoxazole	52·2%	47·8%
Doxycyclin	63·63%	36·37%
Genramycin	100%	0·00%
Epicillin	60%	40%

Chemoprophylaxis

It is observed that antibiotics has been used pre-operatively in about 60% of the 'clean' and 'clean-contaminated' cases without any actual indication and it is a national wastage.

In about 50% of the infected cases inappropriate drugs has been selected due to inadequate and selective hospital supply

of drugs (Table—4) and economical handicap of the patients and in most of the cases

TABLE 4

Drugs available between Feb. to May '83 at CMC Hospital.

A.	Parenteral preparations
	1. Inj Cryst. Penicillins.
	2. Inj. Streptomycin.
B.	Oral preparations
	1. Cap. Ampicillin.
	2. Cap. Tetracyclin.

antibiotic therapy was continued for long period without any significant clinical response.

In our series, 4 post-operative cases were tried without any antibiotics Out of 4, 2 were 'clean', 2 were 'clean-contaminated' cases, and only one 'clean contaminated' case developed minor infection (stitch abscess).

In another 4 cases with Gm. positive infection (Staph. aureus), has been controlled only by increasing the dose of Inj. Cryst. Penicillin, where the organisms were resistant to usual dose of Penicillin as proved by culture and sensitivity test and clinical response.

3 cases with resistant Gm.—ve infection has been treated effectively only by local application of Metronidazole powder and Vinegar, where the sensitive drugs were very costly and beyond the capacity of the patients.

Discussion

From our study it is clear that the rate of infection is tremendously higher in our hospital and it is time to give a deep thought on this problem, and this can easily be solved with our available resources.

Thus, we can conclude that the commonest cause of such wound infection problems are due to inadequate asepsis, and inappropriate, improper & random use of antibiotics leading to the development of a wide spectrum of resistant strains of organisms in the hospitals and socities at large.

No attempt to prevent hospital infection will be successful, unless we can assure adequate asepsis, especially ensured sterilization of surgical articles and dressing materials.

We are to restrict the use of prophylactic antibiotics.

No antibiotics should be used in 'clean' cases.

Single dose of pre-operative antibiotic prophylaxis in gastroduodenal cases.

Use of Tetracyclin in saline for peritoneal lavage in 'contaminated' cases.

Selection of appropriate drugs in 'contaminated' cases depending on the nature of suspected contamminating organisms.

Improvement of general health of the patient, thereby increasing the resistance of the host.

Once the infection is suspected, stress should be given more on local management of the wound than random use of higher systemic antibiotics. Appropriate systemic antibiotic should be used in invasive infection (i.e. infection with systemic manifestation) as per culture and sensitivity test.

Acknowledgement : We are greatful to Dr. M. A. Hai, Prof. and Head of the Dept. of Pathology and his Department, Miss Rohima Jamal Akter, Stuff Nurse, for their help to carry out various investigations.

Our thanks also to Dr. Shah Alam B.U., Registerer of Surgical unit-1, CMCH, Dr. Mizan, Dr. Selim, Dr. Shazed, Dr. Partha for their generosity and forbearence.

REFERENCES

1 Dunphy J.E., MD, Way L.W., MD, Post-operative wound Infection : CURRENT SURGICAL DIAGNOSIS AND TREATMENT, Lange Medical publications, California, 3rd edn. p. 126-128, 1977.

2 Griffiths D.A. et al ; Single dose preoperative antibiotic prophylaxis in gastrointestinal surgery, Lancet, 2 : 325, 1976.

3 Rasul G, and Ashsraf Ali, A. A. The Role of Routine Antibiotic in the prevention ef wound inffection after surgery, BMRC. Bulletin, Vol. V, No. 2 : 71-74, Dec. 1979.

4 Comphell WB, prophylaxis of infection After Appendectomy, BMJ, p. 280, 1980.

5 Noone M. R, et al ; Pseudomonus aeruginosa colonisation in an intensive therapy unit, Role of cross infection and host factors, BMJ, p. 341, Jan. 29, 1983.

PANCREATIC TUBERCULOSIS—REPORT OF A CASE

P. Purkayastha [1]
M. Zaman [2]
A. K. Azad Khan [1]

Abdominal tuberculosis is commonly encountered in Bangladesh and in many developing countries. The disease can involve any intra-abdominal organ but ileo-caecal region is affected in 85-90% of cases [1]. Mesenteric lymph nodes come next in frequency. Abdominal tuberculosis may produce protean manifestations and may mimic abdominal malignancy, cirrhosis of liver, protein calorie malnutrition etc. Tuberculosis of the abdomen often presents problem in diagnosis in the absence of obvious disease elsewhere in the body. Although tuberculosis may in theory involve any organ, pancreatic involvement by the disease appears to be singularly rare. In a study [2] carried out in Nigeria on 98 cases of abdominal tuberculosis 20 were found to have involvement in different organs but all of them had adenitis. Only two cases could be shown at post mortem to have pancreatic tuberculosis. We have not come across any report on pancreatic tuberculosis detected in a living subject and this prompted us to report this case.

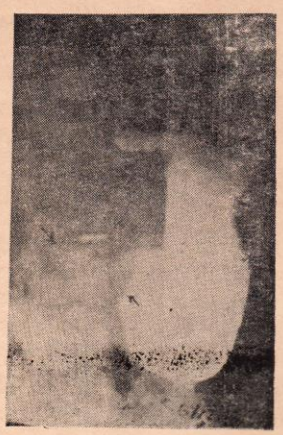
Department of Gastroenterology [1] and Department of Surgery [2], Institute of Post-Graduate Medicine and Research, Dhaka.

Case note : A 21 year aged male was alright 4 months back, since then he was having pain and a feeling of fulllness in the upper abdomen associated with low grade pyrexia. The pain was dull aching, constant and not related to meals. He was admitted in a Medical College Hospital and was treated conservatively as a case of hepatic amoebiasis.

The patient apparently felt improved with the treatment and was discharged after 12 days of admission. Soon he noticed a tender lump in the upper abdomen which was aching almost constantly. At this stage he was admitted to our care. The patient was emaciated and grossly anaemic and there was a firm, fixed and mildly tender lump in the epigastrium. Lymph nodes were not enlarged.

Laboratory investigation showed—Haemoglobin 6g%, Blood counts, Blood urea, Blood glucose, S.G.O.T., S.G.P.T., Serum alkaline phosphatase, Serum amylase, Serum total protein and Albumin-Globulin ratio were all normal. ESR was 60mm. in 1st hour (westergreen). X-ray chest did not reveal any abnormality. Ba-meal X-ray showed widening of the

duodenal loop with narrowing of the 1st and 2nd part of the duodenum (Figures).



Exploratory laparotomy was done. Caseous materials from the pancreas was scooped out. Histopathologically the caseous materials showed chronic granulomatous picture simulating tuberculosis. He was treated with INH, Rifampicin and Ethambutal. The patient made prompt improvement and his ESR after 3 months of treatment was 20mm in 1st hour (Westergreen) The treatment was stopped after 6 months when he was feeling normal.

Discussion :— The present case illustrates the fact that no organ is immune from tuberculosis. Why pancreatic involvement is rare is unknown to us. How the

infection reached the pancreas in this particular case is a matter of speculation. Direct spread from a lymph node is the likely possibility although this was not demonstrated at the time of exploration.

REFERENCES

1 Gleason, T et al. Tuberculosis of the Duodenum : Am J Gastroenterol 1979 ; 72 : 36-40.

2 Johnson, AO and Aderele, WI. Abdominal tuberculosis in childhood : J. Trop. Med. Hyg. 1979 ; 12 : 47-52.

PRIMARY TUBERCULOSIS OF VULVA—A CASE REPORT

G. Rasul *

K. Zaman *

Summary : A case of primary tuberculous ulcer of vulva is reported in a girl of seven months. The literature is reviewed. It is a rare condition, and it is the first reported case from Bangladesh.

Key words

Tuberculous ulcer, Primary tuberculosis, Vulval ulcer.

Case report : A seven month old girl presented with an ulcer in the right labium majus, and enlargement of the clitoris for four months. She had been treated with oral ampicillin and co-trimoxazole and local tetracycline and furacin cream without any result.

On examination, the child was not apparently ill. She was of moderate nutrional status. Systemic examination did not reveal any abnormality. Local examination showed an ulcer in her right labium majus (Fig. I), pale looking, covered with unhealthy granulation tissue, no induration in the base. The clitoris was about four times the normal size with oedematous skin. Bilateral inguinal glands were discretely enlarged. Iliac glands were not palpable. Vagina was normal, and no discharge was present.

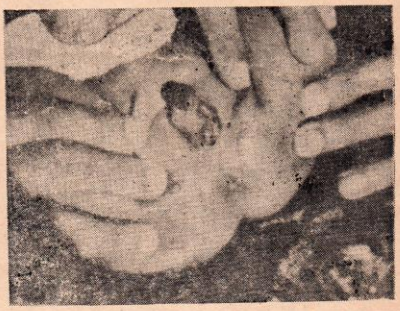


Fig 1. Ulcer in her right ablum majus.

Blood count was normal. Chest X-ray did not show any change. Montoux test

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was positive with 30mm induration in 48 hrs. time. Biopsy from the margin of the ulcer showed a chronic granuloma with typical Langhans type of giant cells (Fig. 2). No attempt was made to isolate M. tuberculosis from the lesion. A visit to the householed and interview of the family members did not reveal any source of contact.

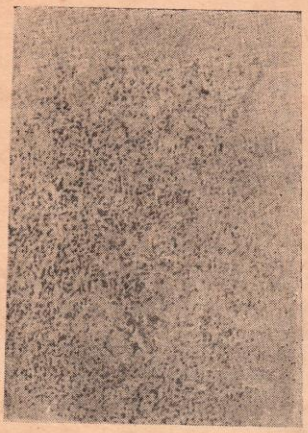

Fig. 2. Histopathology of ulcer showing granalomatous reaction.

She was put on anti-T.B. treatment with rifampicin, INH and PAS. The ulcer healed in three weeks time. She was seen again after four months when she had developed multiple cold abscesses in both groins (Fig. 3). The mother admitted that drugs were administered irregularly. She was hospitalised and the abscesses drained with removal of all caseous materials. Removed glands showed the histological appearance of tuberculosis. Drug treatment was being continued.

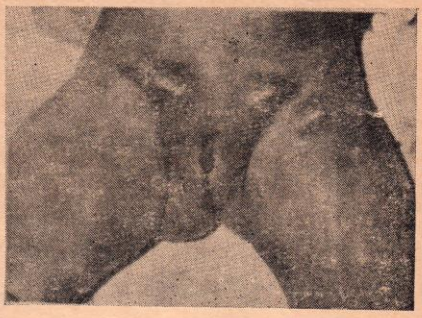

Fig. 3. Multiple cold abscesses in both groins.

Discussion : Tuberculosis of vulva is not common. Most of the reported cases are secondary to lesions higher up in the genital tract. By 1949, only 100 cases have been reported. The condition can occur at any age, and has been reported in patients aged from seven months to eighty years (Brennar, '76). In a 31 yrs. study of 1436 cases of genital tuberculsis, lesions of vulva and vagina comprised 0·07% only (Nogales-Ortiz, '79). Lymphoedema of vulva following tuberculosis of inguinal glands have been reported by several authors (Stewert, '68, Bhattacharya, '78) Fisher ('79) reported one case of tubercular ulcer of vulva as a part of generalised miliary tuberculosis.

The present case is believed to be of primary tuberculosis as no other lesion anywhere else in the body could be detected. Schmid (1940) and Nilson (1949) described extremely rare cases of primary vulval T.B. where the female had been infected as a result of coitus with a male suffering from T. B. of epididymis. In children, the source of infection has been attruibted to the fingers

of attendants. Another possibility is droplet infection from on-lookers with open pulmonary T. B., where the infants are left naked.

REFERENCES

1. Bhattacharya, P; "Hypertrophic tuberculosis of the vulva" ; Obstet. Gynaecol. 1978. 51(1 Suppl) pp21-22.
2. Brennar, BN; "Tuberculosis of the vulva—case reports". S. Afrc. Med. J. 1976, 50(44), pp 1798-800.
3. Fisher, JB: "Miliary tuberculosis with unusual cutaneous manifestation" JAMA, 1977, 238(3). pp 241-2.
4. Nilson, O; Act. Chir. Scand. 1949, 97, p 485.
5. Nogales-Ortiz, F; "The pathology of female genital tuberculosis—A 31 years study of 1436 cases". Obstet. Gynaecol 1979, 53(4). pp 422-28.
6. Schmid, M; Schwez. med. Wschir. 1940. 21, p 852.
7. Stewart, DB; "Tropical Gynaecology, ulcerative and hypertrophic lesions of vulva". Proc. R. SOC. Med. 1968. 61(4), pp 363-5.

[*Continued from front inside cover*]

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. 208-215.

Chapter of book :

6. 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 :

7. Natvig JB, Kunkel HG, 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.
8. 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.

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Reprints of articles will be furnished to contributors when ordered in advance of publication. An order form, showing cost of reprints, is sent with proofs. Individuals wishing to obtain reprints of an article can do so by contacting the author at the address given in the journal.

A NEW SIMPLE APPROACH TO THE CORRECTION OF RETROVERTED GRAVID UTERUS.

Bhuyan A. B. *

The patient should be explained the proceedure to be followed so as to gain her confidence.

The patient is catheterised with all aseptic precautions and put on the knee-chest position. The obstetrician should stand on the left side of the patient. The patient must relax herself, particularly the abdominal muscles. To facilitate the relaxation the patient should be asked to breath deeply. The knees should be relatively well apart to make the patient comfortable. The index and middle fingers are introduced into the vagina using an antiseptic lubricant. the labia are made apart which will allow air to enter the vagina and to balloon it out. The left hand should be placed over the lower abdomen to feel the amount of relaxation of the abdominal muscles(Fig. 1). All the time the patient should take regular deep breaths. The vaginal wall should be gently ironed out with the fingers to facilitate the ballooning out of the vagina. Once vagina is sufficiently ballooned out, posterior fornix is pushed gently with the index and middle fingers (Fig. 2). The fundus of the uterus will be found to drop down towards the diaphragm. The proceedure will be completed when whole vagina will be completely ballooned out with dropping down of the uterus towards the abdominal wall which will be felt by the palpating left hand.

After completion of the proceedure the patient is allowed to lie on her face without any change of position for 48 hours.

* Professor of Obstetrics and Gynaecology, Sylhet Medical College.

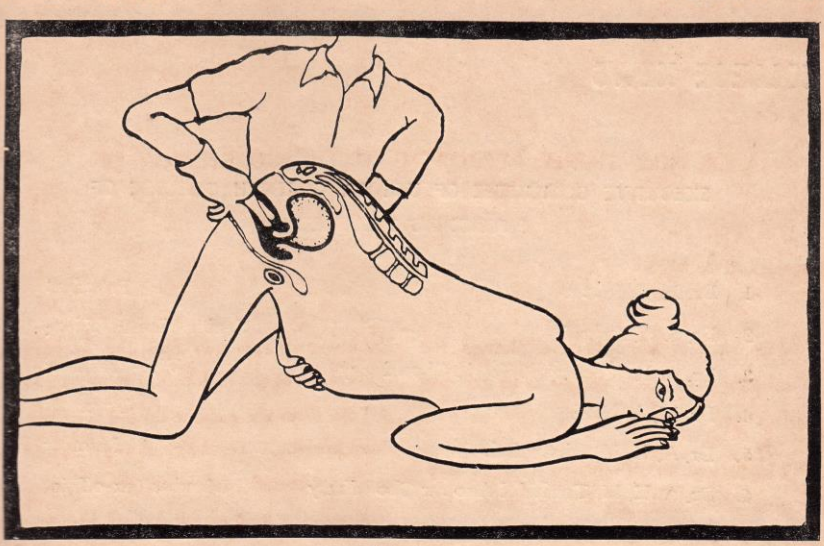

Fig. 1.

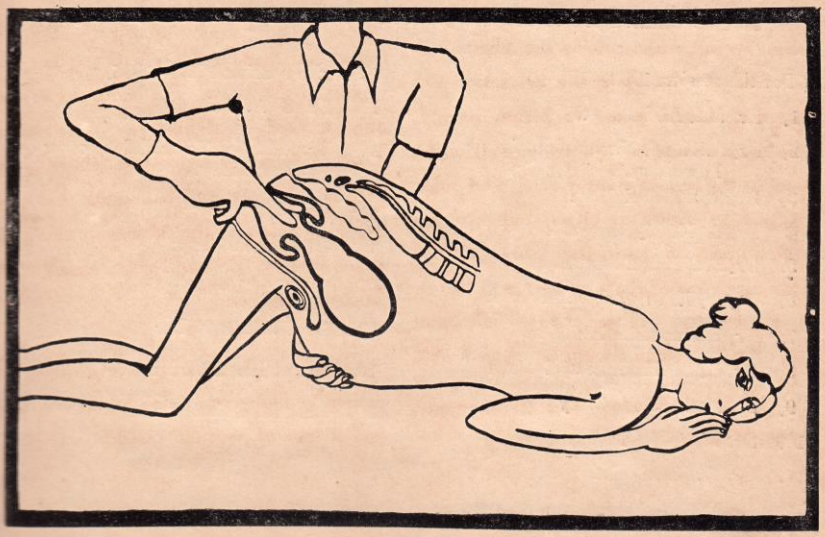

Fig. 2.

COLLEGE NEWS

EXECUTIVE COMMITTEE OF THE BANGLADESH COLLEGE OF PHYSICIANS & SURGEONS

1.	Dr. M. A. Matin	President
2.	Dr. S. A. Ashraf	Senior Vice-President
3.	Dr. A. K. M. Nazimuddowla Chowdhury	Vice-President
4.	Dr. M. A. Hadi	Treasurer
5.	Dr. A. H. M. Ahsanullah	Member
6.	Dr. A. H. M. Towhidul Anowar Chowdhury	Member (ex-officio)

List of Councillors of the Bangladesh College of Physicians & Surgeons.

(For the session 1980—1984.)

1. Dr. Md. Abdul Matin
2. Dr. A. K. M. Nazimuddowla Chowdhury.
3. Dr. Md. Abdul Hadi
4. Dr. A. H. M. Ahsanullah
5. Dr. Md. Nurul Amin
6. Dr. A. K. M. Anowarul Azim
7. Dr. Shamsuddin Ahmed
8. Dr. K. M. H. S. Sirajul Haque
9. Dr. M. R. Choudhury
10. Dr. M. A. Jalil
11. Dr. A. K. M. Kafiluddin
12. Dr. Md. Maniruzzaman (Deceased)

(For the session 1982—1986.)

13. Dr. S. A. Ashraf
14. Dr. A.H. M. Towhidul Anowar Chowdhury.
15. Dr. Nurul Islam
16. Dr. Golam Rasul
17. Dr. Rashid-E-Mahbub
18. Dr. Nazmun Nahar
19. Dr. Mahmud Hasan
20. Dr. Md. Ruhul Amin

Sub-committees.

Reference Committee

1.	Dr. M. A. Matin (President, BCPS)	Chairman
2.	,, M.R. Choudhury	Member
3.	,, A. H. M. Ahsanullah	,,
4.	,, Md. Abdul Hadi	,,
5.	,, Md. Nurul Amin	,,
6.	,, Shamsuddin Ahmed	,,

Examination Committee

1.	Dr. S. A. Ashraf	Chairman
2.	,, A. H. M. Ahsanullah	Member
3.	,, Golam Rasul	,,
4.	,, A. K. M. Nazimuddowla Chowdhury.	,,
5.	,, Nurul Islam	,,
6.	,, Nazmun Nahar	,,

Finance Committee

1.	Dr. A.K.M. Nazimuddowla Chowdhury.	Chairman
2.	,, Md. Abdul Hadi	Member
3.	,, A. H. M. Ahsanullah	,,
4.	,, Mahmud Hasan	,,

Library Committee

1.	Dr. M. A. Jalil	Chairman
2.	,, Shamsuddin Ahmed	Member
3.	,, K. M. H. S. Sirajul Haque.	,,

Museum Committee

1.	Dr. Golam Rasul	Chairman
2.	,, Md. Ruhul Amin	Member
3.	Curator of Museum	,,

Committee for Continuing Medical Education and Workshop

1.	Dr. S. A. Shakur	Chairman
2.	,, Mahmud Hasan	Member
3.	,, Nazmun Nahar	,,

Journal Committee

1.	Dr. Golam Rasul	Chairman
2.	,, K. M. H. S. Sirajul Haque.	Member
3.	,, Nazmun Nahar	,,
4.	,, A. K. Azad Khan	,,
5.	,, Shafiqul Hoque	,,

President and Hony. Secretary shall be members of all Committees in (ex-officio) capacities.

Faculties

Faculty of Basic Medical Sciences

1.	Dr. M. R. Choudhury	Chairman
2.	,, A. Quasem	Member
3.	,, K. M. Nazrul Islam	,,
4.	,, Md. Samsuzzoha	,,
5.	,, A. M. Shamsul Huda	,,

Faculty of Medical Sciences

1.	Dr. A.K.M. Nazimuddowla Chowdury.	Chairman
2.	,, A. R. Khan	Member
3.	,, Nazmun Nahar	,,
4.	,, Syed Golam Mostafa Chowdury.	,,
5.	,, Abdul Malik	,,

Faculty of Surgical Sciences

1.	Dr. M. A. Jalil	Chairman
2.	,, Golam Rasul	Member
3.	,, Md. Nurul Amin	,,
4.	,, S. A. Shakur	,,

Faculty of Obstetrics & Gynaecology and Allied Sciences

1.	Dr. A. H. M. Towhidul Anowar Chowdhury.	Chairman
2.	,, Syeda Firoza Begum	Member
3.	,, Syed Ershad Ali	,,
4.	,, Abdul Bayes Bhuiyan	,,
5.	,, A. K. M. Anowarul Azim	,,

The new Faculties will function for 2 years from 14-3-83.

Continuing Medical Education Programme

In the Continuing Medical Education Programme of the College distinguished speakers from all over the country and from abroad delivered lectures in the College Auditorium. Those who are interested to deliver lectures they are requested to contact with the Chairman, Continuing Medical Education & Workshop sub-committee.

Museum

Letters were sent to all Fellows and teachers of Medical Institutions for contribution of specimens to the museum Individuals interested in the development of museum are requested to contact with the Curator of the Museum.

Orientation course

The college organises orientation courses regularly for FCPS part-I examinees for 3 weeks prior to the examination.

College Journal

The college has decided to publish its scientific publication "Journal of Bangladesh College of Physicians & Surgeons" twice a year in February & August. The contributors are requested to submit their papers approximately 2 months before the date of publication. The detailed information is written in column "information to the contributor" in the inside 2nd cover page.

Names of Doctors qualified in Final Fellowship (FCPS) examination of July 1983.

1.	Dr. Mohammad Mohsin	Medicine
2.	,, Quazi Deen Mohammed	,,
3.	,, A. K. M. Khorshed Alam	,,
4.	,, Abul Khair Md. Anwarul Islam	Surgery
5.	,, Muzharul Islam	,,
6.	,, Abdul Kader Khan	,,
7.	,, Shamsun Nahar	Obstetrics & Gynaecology
8.	,, Rowson Ara Begum	,,
9.	,, Meerina Khanam	,,
10.	,, Md. Azizul Islam	,,
11.	,, Salim Mohammad Jahangir	Anaesthesiolgy

Name of Doctors qualified in Membership (MCPS) examination of July 1983.

1.	Dr. Gana Pati Das	Medicine
2.	,, Md. Abdur Razzaque	,,
3.	,, Labiul Harun	,,
4.	,, A.T.A. Golam Mostafa Khan	Paediatrics
5.	,, (Lt. Col) Ruhul Amin, AMC.	Ophthalmology
6.	,, Monzurul Hoque	E.N.T.
7.	(Lt. Col.) Syed Enayet Mowla Akbar	Anaesthesiology
8.	Dr. Arun Chandra Das	Anaesthesiology

OBITUARY

A.F.M. NURUL ISLAM, MB. (Cal.), DRCOG (Lond.). FCPS.

Dr. A. F. M. Nurul Islam, a renowned Gynaecologist and a medical educationist expired on 10th January 1983.

Born in the district of Noakhali in 1917, A.F.M. Nurul Islam went to Calcutta for his studies. He matriculated in the first division in 1932. He passed the Intermediate Examination in first division in Science

from the Presidency College in 1934. He graduated MB from Calcutta Medical College in 1941 and took his practical training in Gynaecology there. In 1951 he went to UK for higher studies and obtained DRCOC in 1952.

After returning home, he joined Mitford Medical School and Hospital. Subsequently he became the Professor of Midwifery of Dhaka Medical College. He was the first Principal of Sir Salimullah Medical College. He was elected a Fellow of the Bangladesh College of Physians and Surgeons.

Dr. Nurul Islam travelled widely. As an outstanding teacher, he trained many young doctors to become successful Gynaecologists, both at home and abroad.

Professor A.F.M. Nurul Islam was a religious man and performed Hajj four times. With him the country has lost a good teacher and an eminent gynaecologist.

M. ASIRUDDIN, MB. (Cal.), FRCS. (Edin.), FCPS.

Dr. M. Asiruddin, one of the leading authority and a great teacher in surgery in Bangladesh died on 8th June 1983. He was 71. M. Asiruddin recieved his medical education from Calcutta Medical College and graduated in the year 1936. He joined as teacher of Anatomy at the Mitford Hospital Medical School in 1947. He went to U.K. for post-graduate studies, and obtained Fellowship of the Royal College of Surgeons of Edinburgh.

After returning home he joined as teacher of Surgery at the Mitford Medical School. Subsequently he succeeded Professor Allinson as Professor of Surgery at Dhaka Medical College where he served as a devoted teacher with distinction for over sixteen years. Since 1962 he had been a Fellow of the College of Physicians and Surgeons of the then Pakistan. He was Vice-president of that College from 1966 to 1971. In 1968 he was appointed Director of the Health Services of the then Government of East Pakistan.

Dr. M. Asiruddin had undertaken research in Pancreatic and Biliary Surgery and had on his credit many publications in

national and international journals. He wrote a book entitled "Patho-physiology in Surgery" which was widely acclaimed. He has written many poems in Bengali which speak about the literary aspect of this great surgeon.

Professor Asiruddin pioneered surgical teachings in the country and there are many Surgeons at home and abroad who were trained by him. His operative techniques were exlcellent.

He leaves behind his wife, one son and two daughters to mourn his death. The country lost an outstanding surgeon and a great teacher.

Md. MUNIRUZZAMAN, MBBS. (Dhak.), FRCS, (Edin.), FCPS.

Md. Muniruzzaman was born at Gaibhanda, Rangpur in 1928. He passed the Matriculation from Jalpaiguri High School in 1943. He passed his I.Sc. examination from Carmichael College in the Fisrt division. He started his medical education at Calcutta Medical College and graduated from Dhaka Medical College in 1950 and stood first in order of merit. He obtained FRCS from Edinburgh in 1963 and joined as Associate Professor of Surgery at Mymensingh Medical College. In 1970 he became Professor of Surgery at Dhaka Medical College. He joined the institute of Post-Graduate Medicine and Research in 1977 and subsequently became its Director in 1980. He was transferred to Dhaka Medical College in 1981 and was working there till he breathed his last at the Institute of Cardiovascular Diseases on 6th May, 1983.

Dr. Muniruzzaman was a Fellow of the Bangladesh College of Physicians and Surgeons and took interest in the affairs of the College. He was elected Chairman of the Faculty of Surgical Sciences of the College.

He is survived by his wife and only daughter. The profession mourns the untimely death of this eminent surgeon and outstanding medical teacher.