TUBERCULAR ENTEROCUTENEOUS FISTULA, A RARE POST OPERATIVE COMPLICATION

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ABSTRACT: One of the post operative complications of abdominal surgeries that lead to very high morbidity and significant mortality is the enterocutaneous fistula. Incorrect judgement by the surgeon for surgery and inadequate preoperative assessments often lead to this complication. Tuberculosis is one of the rare associating causes of it. Our case report is about a 22 year old female, who was operated by a gynaecologist without prior preoperative assessment and laded in post operative enterocutaneous fistula. After thorough investigations it was diagnosed as a case of tuberculosis. The diagnosis was made by bacteriological and histopathological examination of the faecal matter and the local tissues respectively.
KEYWORDS: Extrapulmonary tuberculosis, Post operative enterocutaneous fistula, Causes of enterocutaneous fistula

INTRODUCTION: Enterocutaneous fistula is an abnormal communication between the bowel and the skin. Almost eighty percent of the cases present as post operative complications. Remaining 20 to 30 % are either due to trauma or spontaneously due to malignancies, irradiation, inflammatory bowel disease and Intraabdominal sepsis.[1] Our case presented as a postoperative complication but proved later to be of tubercular origin. This is presented here with review of literatures, because it is rare of its kind. Moreover, the underlying disease was not suspected initially by the treating physician and led to the complication.

CASE HISTORY: A lady aged 22 years presented to the department of Pulmonary Medicine, GSL Medical College General Hospital with a referral from the surgical department. Her complaints were cough with expectoration; shortness of breath and fever of one week duration. Her problem started about one month back with pain in abdomen and amenorrhoea. She visited a gynaecologist in a private hospital near her home with these complaints. She was clinically diagnosed by the gynaecologist as ovarian cyst and underwent oophorectomy. No further post operative investigations like biopsy was done. The procedure was followed by wound infection and abdominal pain. So she consulted the same gynaecologist. Her abdomen was re-explored. The gynaecologist could not tackle the situation and referred the patient to our institute. Case was seen by the surgeons. They found a lower abdomen lump with tenderness. Straight X-Ray abdomen showed multiple air fluid levels suggestive of intestinal obstruction (Fig.1).

Differential diagnosis of Intestinal Obstruction/ pelvic abscess/ antibioma/ foreign body was made. An emergency surgery was planned and the abdomen was opened. They found frozen plastered abdomen, tight inter-loop adhesion, friable tissue and pelvic abscess. They tried adhesinolysis and also aspirated some amount of pus from the site. The friable tissue was sent for histopathological study. The wound was closed in layers with a drain in situ. The pus culture report did not reveal any evidence of growth of aerobic infection. Pus for Acid Fast bacillus (AFB) was absent. Surprisingly on the 3rd post operative day the patient had wound dehiscence with multiple faecal fistulae. That was managed with parenteral nutritional support and good nursing care. Then she was discharged.

But the problems did not end there. The patient again came back to the surgeon with persistent enterocutaneous fistula associated with cough, fever and breathlessness. The surgeon referred the patient to our department and the case was transferred to our side. The patient was emaciated, severely anaemic. On examination of respiratory system, bilateral supra clavicular hollowing, infraclavicular flattening, diminished vesicular breath sounds and coarse crepitations were present on both sides. Chest X-Ray P.A. View showed diffuse infiltrates on both lung fields.(fig.2)

Faecal matter from the fistula (Fig.3) was examined by Ziehl Neelson's stain for presence of AFB. Surprisingly the slide was strongly positive for Mycobacterium tuberculosis (AFB). Concurrent sputum examination for AFB came out to be positive. Later the histopathology of the tissue was received, which showed caseating granulomas.

Diagnosis of Tubercular Enterocutaneous fistula arising of as a post operative complication was made.

The Patient was put on anti tubercular treatment under DOTS (CAT-I) and the response was excellent. There was symptomatic and generalized improvement, as evidenced by clearing of chest findings, weight gain by 2 KGs and the patient was discharged. She was advised to continue DOTS at her home place.

She was regularly followed up for one year to detect early recurrence. There were no such recurrences. The fistula closed completely (Fig.4). The patient is totally asymptomatic with all round generalized wellbeing, with further weigh gain by 3 KG.

Other Investigations before the treatment: Anaemia, Hb-9.8 gm %
Moderate elevation of TLC = 12300/mm3
Neutrophilia, N- 82%; L-17%; E-1%; B/M- 0
Electrolytes – Na^+ 132 mEq/L; K^+ 2.9 mEq/L
Renal Function: Blood Urea- 28 mg%, Sr. Creatinine 0.8 mg %
Liver function Test: No evidence of hepato-cellular damage
Body weight: Initial - 23 Kg; at the time of discharge – 25 Kg; follow up – 28 Kg

DISCUSSION: Before the advent of anti-TB drugs, tuberculosis was taken as a confirmed death sentence to the patients. Patients were dying of extensive pulmonary tuberculosis and different extrapulmonary tubercular complications. Perianal fistula was one of the most fatal forms of tuberculosis in those days though not common now. Though anti-TB drugs changed the pattern, such cases are being encountered rarely.

Post operative enterocutaneous fistula has high morbidity and significant mortality. According to Timothy et al; 2001[2] postoperative fistulas which accounts for 75 to 80 percent of all fistula most commonly occur following cancer surgeries, inflammatory bowel disease

operations and adhesinolysis. Memon et al in a series of 40 patients of post operative fistula cases found typhoid perforation and intestinal tuberculosis as the common causes[3]. The mortality rate in that series was 7.5%

Tubercular enterocutaneous fistulae were reported in two cases during post operative period. They were put on anti-TB treatment. The results were excellent and the fistula closed completely (Pahwa & Girotra; 2010) [4].

Onkar singh, et. Al[5] reported Enterocutaneous fistula over scar of a previous appendicectomy. Response was uneventful after fistulectomy and ATT for nine months.

The enterocutaneous fistulas are usually complicated with malnutrition, electolyte imbalance, infections and bleeding etc. that cause the morbidity in the patients[1]. The mortality attributing to it ranges between 10 and 30% [6].

In our case the pre operative evaluation was not performed by the initial treating gynaecologist and the possibility of tuberculosis was not thought of. Poor surgical judgement is also one of the causes of development of post operative fistula that happened in our patient[7]. The diagnosis was established by histopathological and bacteriological evidences. Acid fast Bacilli were detected microscopically by subjecting the faecal matter from the fistula site, as well as the sputum sample of the patient to Ziehl Neelson Staining.

CONCLUSION: Enterocutaneous fistula is a common postoperative complication. Tuberculosis is one of the rare causes of it. Correct judgement and proper preoperative assessment is essential in all abdominal surgeries to avoid such complications.

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Fig.1: X-Ray of abdomen

Fig.2: Chest X-Ray P.A.View

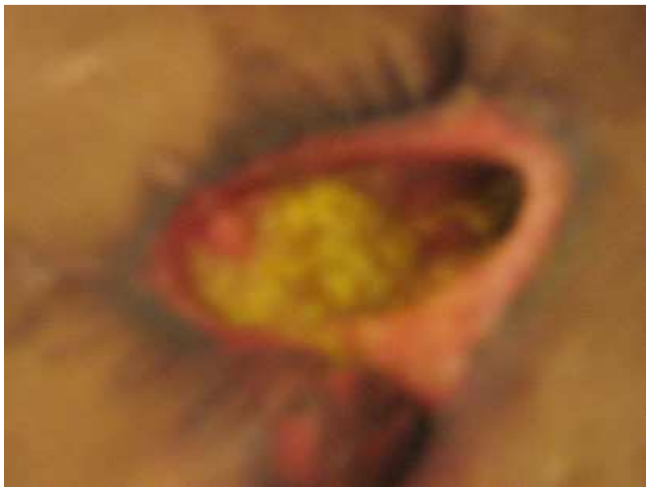

Fig.3: Before-the-Treatment

Fig.4: During-the-Anti-Tb-therapy