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Original Article

ANALYSIS OF TUBERCULOSIS CASES MANAGED BY SURGICAL TEAM OF UNIVERSITY OF SCIENCE AND TECHNOLOGY, CHITTAGONG

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ABSTRACT

An analysis is made on medical records of 190 patients who had various lesions due to tuberculosis. These patients were consulted and managed in Surgical Department of USTC and some private clinics in Chittagong in the period from December 1999 to December 2004. The analysis is made to study the age of the patients, sex, organ involved, type of lesions and problem detected, technique of diagnosis, methods of treatment and the results of it. Age ranges from 14-70yrs. Adults of 25-45 yrs were dominating (140, 73.68%). Male and female ratio was 10:9. Sixty patients (36.84%) were with peripheral lymphadenitis with or without cold abscesses. 48(25.26%) had abdominal tuberculosis and out of which 12 were admitted with acute abdomen and 8 of them were operated on emergency basis. Involvement of breast was in 16 cases (8.42%); Caries spine with cold abscess was in 16 cases (8.42%) and 15 (7.89%) cases were with epididymo-orchitis and epididymitis. Problems of urinary system were in 8 cases (4.21%), 8(4.21%) cases were with ano-rectal problems and 8(4.21%) cases were with pnumothorax and pyeopnumothorax. Skin ulcers were in 8 cases (4.21%). 3 (1.57%) cases had multiple surgical pathology. In 90 cases (47.36%) there was associated pulmonary tuberculosis. Diagnosis was made by usual method, which also includes FNAC and Histopathology. Surgical intervention was needed in 112(58.98%)cases. Result of treatment is good. There is no mortality. Wound infection occurred in twelve cases and they were managed by appropriate antibiotics and wound dressings. Monthly follow-up was done only in 35 cases. In 30 cases there was no obvious complain. Two cases came with recurrent intestinal obstruction. One of these was operated for multiple strictures of small gut and the other got relief by conservative treatment. In three cases casaeated lymph nodes were removed after full course of anti-TB therapy. Almost all patients tolerated anti-TB drugs well except in a few where there was temporary complain of nausea, anorexia, digginess etc. Most of the patients are from poor and middle class family and having minimum educational qualifications.

KEY WORDS

Tuberculosis, Surgical problems, Analysis.

INTRODUCTION

Tuberculosis is a well-known and common infectious disease caused by acid-fast bacilli, Mycobacterium Tuberculosis. About 1\3 adult population of the world is infected by this disease. In spite of implementation of extensive anti-tuberculosis measures, mortality and morbidity due to this disease is still quiet alarming. A good number of patients need surgical consultation and management and these patients are at increase risk of mortality and morbidity because of additional risk related to anaesthesia and operation. So necessity of discussion on this subject needs no bound.

MATERIALS AND METHODS

This is a retrospective review of medical records of one hundred and ninety patients who were consulted and managed in USTC and some private clinics in Chittagong. A surgical team of department of surgery of USTC managed these cases. All information is properly analyzed. Special attention is given to those cases that were surgically treated.

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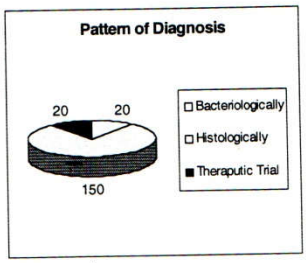
ANALYSIS



The analysis showed that patients age ranges from 14-70 yrs. and adults are predominating (140,73.68%). Male female ratio is 10:9. Most of the patients are from poor and middle class family and with minimum educational qualification. Besides clinical approach, some laboratory investigations, radiological and imaging technique, FNAC and Histopathology are performed to establish the diagnosis. Pattern of diagnosis is presented in **(Fig.1)** Peripheral lymphadenopathy with or without cold abscesses was in 60(30%) cases. Abdominal problems were in 48(25.26%) cases. Breast problems were in 16 cases and there were lesions involving other organs too **(Fig.2)**. Analysis of abdominal cases is shown in **Fig.3.**

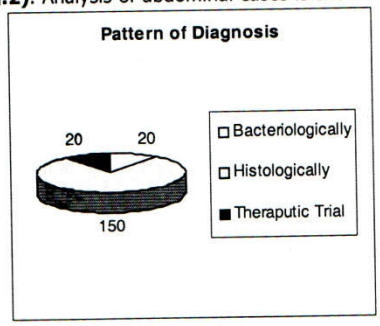


Fig: 1

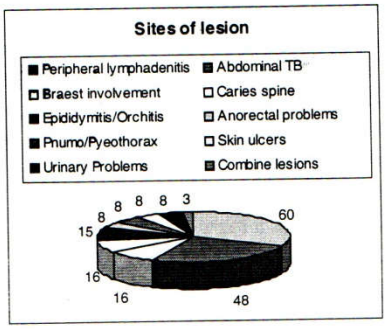


Fig.2

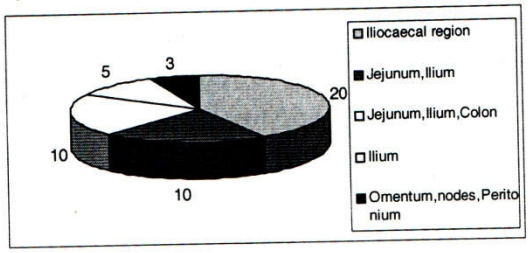


Fig.3.

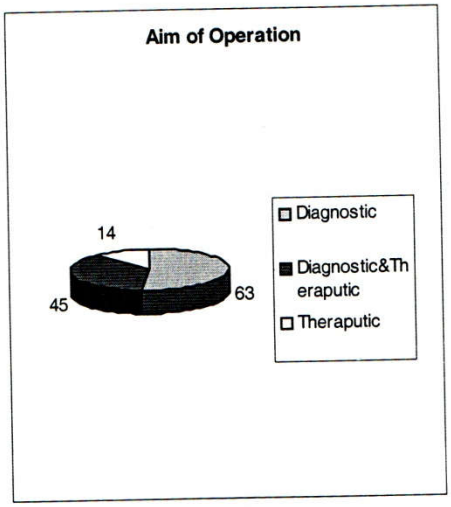


Fig.4.

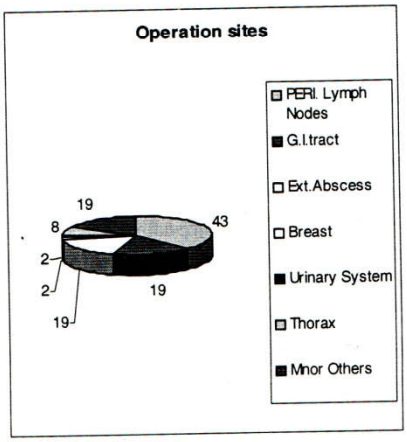


Fig.5.

Different types of surgical intervention needed for the cases:

1.	Resection of part of Ileum, Caecum& Ascending Colon.	6 cases
2.	Resection of part of small gut with end-to-end anastomosis.	2
3.	Strictureplasty in different sites of Jejunum and Ileum.	4
4.	Excision of perforated area of small gut and strictureplasty at different sites	1,
5.	Repair of perforation at Ileum.	1,
6.	Excision of grossly effected portion of greater omentum.	1,
7.	Laparatomy, tissue for biopsy from mesentry, abd.lymph nodes.	4
8.	Lumpectomy of breast.	2
9.	Nephrectomy and ureterectomy (unilateral).	1,
10.	Excision of lower portion of left ureter with its reconstruction.	1.,
11.	Excsion biopsy of cervical lymph glands.	43,
12.	Aspiration of pus from abscess	18.
13.	Excision of Abscess	1
14.	Drainage of pyeopnumothorax and pnumothorax	8
15.	Skin graft,	4,
16.	Tissue taken for biopsy from ulcers, fistula, and sinus etc.	15
	Total——112	

Fig.6.

Of the 16 breast cases 10 were with lumps, 4 with chronic discharging sinuses and 2 with long- standing deep ulcers and lump. In 90 (47.36%) cases there was associated pulmonary tuberculosis demanding no surgical management. Different types of surgical procedures, which were performed, are shown in **Fig.6.** In 40 cases there were associated diseases like; DM, Hypertension, Peptic Ulcer, COPD. These cases needed additional treatment for the mentioned diseases. All patients except 2 pregnant cases got 4-FDC regimens consisting of Rifampicin, Pyrazinamide, Isoniazid and Ethambutol for 2 months and 2 drugs combination consisting of Rifampicin and Isoniazid for next 4 months according to body weight of the patients. Cases with spine involvement got treatment for nine months. Some of the patients received Metronidazole and Cephalosporin for other types of bacteria. Result of surgical treatment is shown in **fig.7 &fig.8**. There is no mortality. In 12 cases there was mild to moderate wound infection which was controlled by appropriate antibiotics and wound dressings. Monthly follow-up was done in 35 cases. Almost the entire patients tolerated anti-TB treatment well except in a few where there was temporary complains of nausea, anorexia and digginess. Two patients who were previously treated conservatively for sub-acute intestinal obstruction they developed recurrent acute intestinal obstruction .One of them was operated successfully and other was treated conservatively. In 3 cases caeseated cervical lymph nodes were removed after full course of anti TB drug therapy.

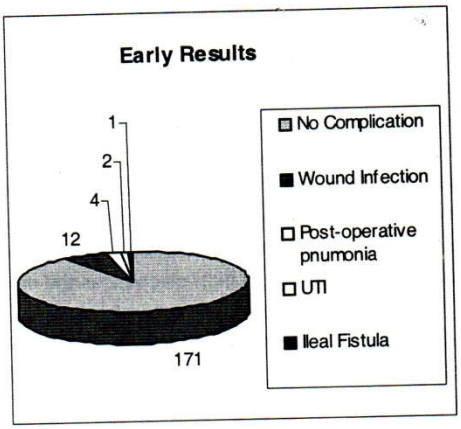


Fig: 7

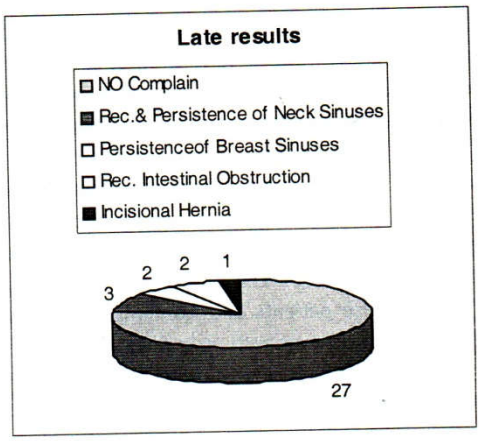


Fig: 8

DISCUSSION

Tuberculosis is a world -wide common infectious disease. It is more prevalent in overcrowded and low- income communities. Due to emergence of MDR-TB cases and HIV infected patients control of tuberculosis has become difficult. Though lungs are the common sites but other organs may be affected too. Besides medical treatment a good number of patients are to take help of surgeons for some long standing lesions of different organs either for proper diagnosis or for surgical treatment also. Abdominal tuberculosis of different modalities is staying as an important subject for the surgeons working in the disease prevalent areas. In our study we have 48 such cases (25.26%)and of them 12(25%) were with acute abdomen. In some literature it accounts 29%. Eight cases had to be operated on emergency basis. Lymphadenitis with formation of cold abscess is also a common presentation of extra pulmonary tuberculosis. Small ones are cured simply by anti-TB therapy but in medium size and big size cases there may be need for aspiration of pus and even excision of abscess. In this study there are 60 cases of lymphadenitis. Of this 43 cases were referred for excision biopsy of affected lymph glands. It is considered that histopathological diagnosis is the most practical method for diagnosing peripheral tuberculous lymphoadenopathy. 17 cases were referred with cold abscesses and 13 of these responded well with anti-TB therapy only but in 3 cases repeated aspiration and in 1 case excision of neck abscess was also necessary to get good results. Excision of abscess is rarely done especially if it is in the neck because of possible complication due to injury to important vessels, nerves and other structure. No such complication is noted in this case. TB breast is relatively uncommon. Here we have 16 cases and 2 of them needed lumpectomy and 2 skin graft. Other 12 were cured by only anti-TB therapy. TB spine in usually managed by orthopaedic surgeon. 16 cases are recorded in this study and they presented with big cold abscesses. A joint team consisting of general surgeons and orthopaedic surgeons managed these cases. Aspiration of pus and anti-TB therapy (9 months course) cured these patients and no complication was recorded. Fifteen cases were with orchitis and epididymitis. Twelve of them responded quickly with anti-TB therapy. Firm lump decreased in size. But in other three the lumps are staying in same size even after six months of treatment. Involvement of urinary system is usually haematogenous. Kidney, ureter, bladder, urethra either alone or in combination may be affected. We have 8 such cases and in two of them surgical intervention was necessary. Involvement of anorectal area is not so common. Chronic discharging sinus, fistula, proctitis are usual presentation. 8 cases are defined here, three with fistula- in- ano and three with proctitis and two with anal ulcer. One case with fistula was operated as non-specific variety but it recurred. Diagnosis was confirmed in these cases by Histopathology. All cases responded well with anti –TB therapy. Cases with proctitis usually present with anorectal bleeding and they were usually diagnosed by Histopathology. Combine surgical pathology due to TB is not uncommon . Three cases are described here. One was with fistula in ano and bilateral gluteal abscess; two were with collar stud abscess and epididimitis. The first one was operated for fistula- in- ano and gluteal abscess somewhere but the wound healed only after anti TB therapy. Eight patients presented with long standing deep skin ulcers and they were cured by anti-TB therapy and skin grafts. 8 cases were with pnumothorax and empyema thorax. They were cured by chest drain and anti-TB treatment. So it is evident that tuberculosis can affect various organs of our body and due to fibrosing stenosis, perforation, and gross destruction of tissue they sometimes present with surgical problems for which they may need surgical consultation and management.

CONCLUSION

Tuberculosis is a common and burning problem not only for physicians but also for surgeons especially who are working in the disease prevalent areas. Surgeons should keep in mind the possibility of this disease in everyday practice. In all cases definitive diagnosis may not achieved. So in a number of cases treatments is given on the basis of strong suspicion and good therapeutic response. Better diagnostic procedure will be necessary for the management of this category of patients.

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