PROSPECTIVE STUDY OF CHANGING PATTERN OF OCCURRENCE AND TREATMENT OF ABDOMINAL TUBERCULOSIS AT JNMC ALIGARH OVER A PERIOD OF SIX YEARS

MOHAMMAD IQBAL ZEA¹, RAZA FAROOQUI¹, MOHD MOJEEB AHSAN², AFZAL ANEES³ AND TARIQUE HUSSAIN ASHRAF⁵

¹abAssistant Professor, Department of Surgery, Muzaffarnagar Medical College, Opposite Begrajpur Industrial Area, Muzaffarnagar, Uttar Pradesh, India
²Professor, Department of Surgery, Jawaharlal Nehru Medical College, AMU Aligarh, Uttar Pradesh, India
³Assistant Professor, Department of Surgery, Medical College, King Khalid University, Abha, Saudi Arabia

ABSTRACT

Abdominal Tuberculosis includes tuberculosis infection of gastrointestinal tract, mesentery, lymph nodes and omentum, the peritoneum and related solid organs such as liver and spleen. This study aims to document the trend of different types of presentation and treatment approach in Abdominal Tuberculosis according to involved sites and surgical pathology over a period of six years. 786 patients of abdominal tuberculosis admitted in emergency as well as in outdoors of various department of J. N. Medical College, Aligarh during the period of July 2004 to June 2010 were analyzed. Abdominal pain and altered bowel habit were two most common presenting complaints. A clear trend towards conservative approach for management of abdominal tuberculosis was found. Irrespective of surgery, all patients of abdominal tuberculosis require a full ATT

KEYWORDS: Abdominal Tuberculosis, Mesenteric Lymphadenitis, Stricture, Abdominal Lump, Ascites, Caseation Granuloma, ATT

Abdominal tuberculosis is far more common in India than is commonly believed. Statistics about its prevalence vary so widely due obviously to the high selection of the cases investigated that it sometime appears pointless to quote them and use them for valid comparisons, except to stress a lacuna that exists in the information on the subject. Spread via blood or lymph remains the most plausible aetiopathogenesis of G.I. tract tuberculosis, with or without associated pulmonary disease.

Abdominal tuberculosis is a medicinal disease. Here conservative treatment with anti-tubercular drug cures the disease. Surgery is only undertaken in complication or when conservative treatment fails (khan et al 2006). The complications may be acute intestinal obstruction, perforation, fistula or undiagnosed abdominal mass. Although operative management of abdominal tuberculosis constitutes good percentage of cases, with advancement in noninvasive methods of early diagnosis, critical care and anaesthetic procedures fair number of cases are now tried conservatively. In this study we are analyzing the pattern of presentation and management over six years at our institution.

MATERIALS AND METHODS

The present study included 786 patients admitted in emergency as well as in outdoors of various department of J. N. Medical College, Aligarh during the period of July 2004 to June 2010. These patients were diagnosed as abdominal tuberculosis on the basis of thorough clinical examination, investigation (hematological, cytological, biochemical, radiological and serological).

a) Patients aged between 14 years to 70 years were included in this study.

b) Patients showing improvement in symptoms on 2 months empirical chemotherapeutic trial were also included.

c) Operative findings as well as histopathological report were taken as criteria of inclusion in patients operated in emergency.

d) Patients lost during treatment or investigations were not included.

e) Patients having tuberculosis of other systems simultaneously were excluded.

RESULTS

All 786 patients included in the study were analyzed for their presenting symptoms, their severity, response to treatment and final outcome. Numbers of female patients (479) were found more than male (307). Majority of patients were fall between age group 20 to 40 years (64%).

Abdominal pain was most common presentation in our study which was followed by altered bowel habit. We found a decline in percentages of patients presenting...
with complains of pain and distension over a period of six
years. Altered bowel habit shows slightly increasing
incidence over six years. Other symptoms like fever,
anemia, anorexia and weight loss did not show much
difference. (Table-1)

<table>
<thead>
<tr>
<th>Year</th>
<th>No of patients</th>
<th>Pain abdomen</th>
<th>Altered bowel habit</th>
<th>Abdominal distension</th>
<th>History of fever</th>
<th>Abdominal lump</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 2004-Jun 2005</td>
<td>122</td>
<td>116 (95%)</td>
<td>73 (60%)</td>
<td>56 (46%)</td>
<td>66 (54%)</td>
<td>31 (25%)</td>
</tr>
<tr>
<td>Jul 2005-Jun 2006</td>
<td>148</td>
<td>136 (92%)</td>
<td>93 (63%)</td>
<td>66 (45%)</td>
<td>80 (54%)</td>
<td>41 (28%)</td>
</tr>
<tr>
<td>Jul 2006-Jun 2007</td>
<td>152</td>
<td>134 (88%)</td>
<td>100 (66%)</td>
<td>58 (38%)</td>
<td>77 (50%)</td>
<td>47 (31%)</td>
</tr>
<tr>
<td>Jul 2007-Jun 2008</td>
<td>118</td>
<td>108 (92%)</td>
<td>75 (64%)</td>
<td>44 (37%)</td>
<td>61 (52%)</td>
<td>35 (30%)</td>
</tr>
<tr>
<td>Jul 2008-Jun 2009</td>
<td>134</td>
<td>121 (90%)</td>
<td>92 (69%)</td>
<td>56 (41%)</td>
<td>74 (55%)</td>
<td>44 (33%)</td>
</tr>
<tr>
<td>Jul 2009-Jun 2010</td>
<td>112</td>
<td>100 (89%)</td>
<td>80 (72%)</td>
<td>41 (37%)</td>
<td>57 (51%)</td>
<td>34 (30%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>786</strong></td>
<td><strong>715 (91%)</strong></td>
<td><strong>513 (65%)</strong></td>
<td><strong>321 (41%)</strong></td>
<td><strong>415 (53%)</strong></td>
<td><strong>232 (30%)</strong></td>
</tr>
</tbody>
</table>

Out of these 534 patients were managed conservatively whereas 252 patients were operated. Conservative group was managed with adequate diet and antitubercular drugs till the improvement of their symptoms. They were having ascites, sub-acute intestinal obstruction, abdominal lump and mesenteric lymphadenitis. Patients underwent diagnostic laparoscopy for diagnosis were later treated with ATT were include in conservative group. The operative intervention undertaken depended upon the lesion present mostly because of peritonitis either primary or secondary, obstruction and failure to respond conservative management. Full course of anti-tubercular drugs were given to both groups. All these patients were analyzed on yearly basis. (Table-2)

<table>
<thead>
<tr>
<th>Year</th>
<th>No of patients</th>
<th>Conservative management</th>
<th>Operative management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 2004-Jun 2005</td>
<td>122</td>
<td>66 (54%)</td>
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<td>Jul 2005-Jun 2006</td>
<td>148</td>
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<td><strong>Total</strong></td>
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<td><strong>534 (68%)</strong></td>
<td><strong>252 (32%)</strong></td>
</tr>
</tbody>
</table>
Out of 252 patients underwent operative management 83 were presented with peritonitis, whereas 97 patients had intestinal obstruction and 62 were non-responder of conservative treatment. Ileocaecal area was involved in 182 cases whereas 42 patients had isolated ileal lesion. 14 patients had intestinal cocoon, 8 patients showed jejunal stricture and 6 with colonic stricture. Mesenteric lymph nodes were found enlarged in almost all cases and sampled for histopathological examination of which 172 (68%) were showing characteristic caseation granuloma. 17 patients of operated series died due to severe septicemia.

DISCUSSION

Tuberculosis has become a public health problem worldwide. However, the gastrointestinal tract is the sixth-leading location of extra-pulmonary tuberculosis, following nodal, genitourinary, bone and joint, miliary and meningeal locations (Mehta et al 1999). Although it affects almost every tissue of abdominal cavity, ileocaecal region remains its most favorite site (Kumar et al 2008).

Most common mode of portal to abdomen is still hematogenous spread from a primary focus in the lungs that subsequently healed completely. Hepatosplenic tuberculosis almost always follows miliary seeding and is a manifestation of dissemination throughout the body (Sanai and Bzeizi 2005). The absence of characteristic clinical features of the disease often makes its diagnosis difficult and elusive.

Abdominal tuberculosis is notorious among other abdominal disease for its nonspecific presentations. Its natural history ranges from nonspecific symptoms like malaise, abdominal discomfort, loss of appetite, altered bowel habits not responding to usual medicines to life threatening conditions like bowel obstruction or perforation (Bayramiçli et al 2003).

Pain can be either colicky due to luminal compromise, or dull and continuous when the mesenteric lymph nodes are involved. A well-defined, firm, usually mobile mass is often palpable in the right lower quadrant of the abdomen. Associated lymphadenitis is responsible for the presence of one or more lumps which are mobile if mesenteric nodes are involved and fixed if para-aortic or iliac group of nodes are enlarged. Intestinal obstruction occurs mainly due to narrowing of the lumen by hyperplastic caecal tuberculosis, by strictures of the small intestine, which are commonly multiple, or by adhesions (Wadhwa et al 2004).

In country like India where tuberculosis is endemic up to 54% cases of intestinal obstruction occurs due to tuberculosis (Bhansali and Sethna 1970). In our study abdominal pain was found in above 90% of case and its frequency decreases along with abdominal distension in time span of six years, which may be correlated with early presentation of patients due improvement of education. However complaints like altered bowel habits shows increasing trend in our study.

It has to be remembered that though emergency surgery may overcome the temporary crisis of an acute tuberculous abdomen, the permanent cure can only be achieved by a full course of anti-tubercular medication (Sharma and Bhatia 2004). Operative management usually requires for acute conditions. Operative procedures differ according to site and severity of involvement and general condition of the patient. It ranges from stricturoplasty, resection of bowel, stoma formation to bowel bypass (Mukhpadhyay et al 2014). In our study we had found a shift in trend from more operative towards more conservative approach in cases of abdominal tuberculosis over a period of six years at JNMC Aligarh, U.P.

CONCLUSION

Tuberculosis is an important cause of morbidity in India. With improvement in diagnostic modalities and availability of free of cost anti tubercular drugs at almost every district hospital serious and neglected cases becomes uncommon, meanwhile improvement in health care structure impart clinicians to take more chance for offering conservative management.

REFERENCES


