Research Paper

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The surgical treatment of abdominal tuberculosis- study of 50 cases

Medical Science

KEYWORDS : Abdominal tuberculosis, surgical treatment, Antituberculosis drug

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ABSTRACT

Background: Abdominal tuberculosis has been recognized as a definite and pathological entity for many years. The disease is very common in our county due to poverty, overcrowding malnutrition, poor general hygiene and above all there are large number of undetected and detected open cases of pulmonary tuberculosis in the community.[1] Approximately, 2% of the population in our country suffers from tuberculosis of which 2-2.5 millions are active cases.[2] Abdominal tuberculosis could be classified according to the site of organ of involvement such as, peritoneal tuberculosis, gastric tuberculosis, tuberculosis involving the liver or manifesting as perianal abscess and fistula. Pathologically, tuberculosis has been classified into (i) ulcerative type (ii) Hypertrophic type (iii) Ulcero-hypotrophic type. Material and methods: 50 cases of intestinal tuberculosis were studied on different criterions like detailed clinical history, systemic examination, investigations and treatment. The main focus was on demographical study, diagnosis and treatment mainly surgical in abdominal tuberculosis. Results: Abdominal tuberculosis can occur at any age. Present series and other series published before show that no age is immune. The common age group affected is between 20-40 years. Ileum, caecum, ileocaecal region are most commonly involved. The other less frequent site were colon, duodenum, stomach, jejunum and anal canal rarely peritoneum and mesenteric glands in majority of cases. Descending colon rectum was not effected in any case. In this series it was performed in 15 casas out of this there were cases of hyper plastic ilicocaecal tuberculosis, tuberculosis of ascen-ding colon, hepatic flexor, transverse colon and terminal ilium. The results were satisfactory, two patients died of post-operative shock. In the present series wide redaction and end to end anastomoses was the choice of operation for many surgeons. It was performed in about 34% cases. Out of 50 cases reported only 2 patients died, so the mortality rate is about 4%. Conclusion: In abdominal tuberculosis, surgical treatment followed by antituberculosis drug treatment will give excellent result.

Introduction

50 cases of abdominal tuberculosis requiring surgical intervention were studied and presented. Abdominal tuberculosis has been recognized as a definite and pathological entity for many years. The disease is very common in our county due to poverty, overcrowding malnutrition, poor general hygiene and above all there are large number of undetected and detected open cases of pulmonary tuberculosis in the community.[1] Approximately, 2% of the population in our country suffers from tuberculosis of which 2-2.5 millions are active cases.[2] The frequency with which we become across this disease imparts, raises a magnitude of the problem at present, and study of it is interesting, informative and helpful to treat and eradicate the condition. The disease in a systemic one and its abdominal manifestation are only one of its much localization. This systemic nature of disease which is forgotten so frequently as complained by half should always be kept at the back of the mind. Formerly, it was known to be a common complication of pulmonary tuberculosis, and was thought to be the cause of death by Hippocrates. Now is has been recognized also as a primary lesion without involvement of lung. Abdominal tuberculosis could ne classified either according to whether it is a primary infection involving the abdominal organs or whether it is secondary to pulmonary tuberculosis. [3] Abdominal tuberculosis could be classified according to the site of organ of involvement such as, peritoneal tuberculosis, gastric tuberculosis, tuberculosis involving the liver or manifesting as perianal abscess and fistula. Pathologically, tuberculosis has been classified into (i) ulcerative type (ii) Hypertrophic type (iii) Ulcero-hypotrophic type.[4] Primary abdominal tuberculosis comparatively rare particularly since milk has been pasteurized. As against this secondary abdominal tuberculosis is much more common. whiteaig and his co-worker proved beyond doubt that primary abdominal tuberculosis exits fairly commonly. The subject of abdominal tuberculosis is a wide one because of the fact that the lesion can occur anywhere in the viscera e.g. gut, peritoneum, liver, spleen, fallopian tubes, and ovaries in female, it may present as miliary type. However, the disease is mainly confined to the ileocaeal region, ileum, ascending colon, jejunum duodenum, and stomach and rarely in the distal colon. Isolated involvement of liver is very rare. Davis has stated (1953), that the hyperplastic tuberculosis is probably the result of rectal lesions because of the paucity of reported cases. Nevertheless tuberculosis of colon especially of transverse colon has been hardly reported. Hancock (1958) reviewing tuberculosis is distal colon has collected 60 cases till 1958 and added two of his own. Out of 62 only 11 cases transverse colon was involved. Interesting work had also come from Gupta and Ganguly (1961) who have reported three cases of tuberculosis of stomach while O.P. Gupta and M.K Duve have reported 3 cases of tuberculosis of rectum and l case of transverse colon. As far as the treatment point is concern it need it is both Medical and Surgical depending upon the type and site of lesion. Many few drugs have been introduced in the recent type in the treatment of both pulmonary and extrapulmonary tuberculosis, where surgery is indicated for localized lesions, currently there are three method available one is local conservative resection, wide resection, and hemicolectomy.

Material and methods

50 cases of intestinal tuberculosis were studied on different criterions like detailed clinical history, systemic examination, investigations and treatment. The main focus was on demographical study, diagnosis and treatment mainly surgical in abdominal tuberculosis. All patients were undergone routine blood, sputum and radiological investigations. According to the condition of patients, different kind of surgical treatment were offered. Medical treatment in the form of antituberculosis treatment was given to all patients. Postoperative complications like stitch abscess, wound abscess, intrapritoneal abscess, burst abdomen, intestinal obstruction, leakage from anastomotic site, intestinal hemorrhage, shock, diarrhea, post-operative paralytic ileus etc. were observed. In long term follow up (if possible up to 5 years), different factors like, weight gain, improved appetite, condition of lungs was studied.

Results

Table 1 Incidence of abdominal tuberculosis in relation to age and sex

Age in years.	Male.	Female	Total	Percentage
0-10	0	0	0	0%
11-20	3	10	13	26%
21-30	6	11	17	34%
31-40	4	8	12	24%
41-50	1	5	6	12%
Above 50	2	0	2	4%
Total:-	16	34	50	100%

Table 2 Type of lesion

Type of lesion	site	Present series
1. Hyperplastic	Ileocaecal colon	46%
2. Ulcerative	Duodenum	-
	Jejunum	-
	Ileum	6%
	colon	-
	Anus	2%
3. Combined hyperplastic and ulcerative.	Ileocaecal	8%
4. Sclerotic(Stricture)	Duodenum	2%
	Jejunum	2%
	Ileum	18%
	Ascending colon	4%

Table 3 Postoperative complications

Complications	No of cases
Wound infections	11
Shock	23
Paralytic ileus	9
Burst abdomen	0
Pulmonary complications	4

Discussion

Abdominal tuberculosis can occur at any age. Present series and other series published before show that no age is immune. The common age group affected is between 20-40 years.[5] In the present series about 58% of cases are between 20-40 years of age. While in gupta and dube series it is about 70%.[6] In dutta series it is about 64%.[7] The females between 20-40 years are most commonly affected, possibly because this is the child bearing period and multiple pregnancy's specially in our country, undermine their health sufficiently to induce or activate the lesion.

It is said that the tuberculosis is a disease of poor man in our country, this true with abdominal tuberculosis too. Due to poor economic status people' diet is lacking in essential factors, which lowers the resistance of and ultimately facilitates the development of lesion.[8] The residential condition, the ventilation and the sanitary condition are also very poor in economically backward class of people. In the present series 60% of cases are such where the monthly income is less than 100/- rupees per month. It is rather difficult to evaluate the signs and symptoms of this disease as there is no path gnomonic syndrome that would help us to arrive at a precise and perfect diagnosis. Local symptoms appear late, and are noticed by patient very late. Ileum, caecum, ileocaecal region are most commonly involved.[9] the other less frequent site were colon, duodenum, stomach, jejunum and anal canal rarely peritoneum and mesenteric glands in majority of cases. Descending colon rectum was not effected in any case. The histopathological examination in all cases showed tubercles with giant cells and variable amount of fibrous tissue around the tubercles. No tubercle can be seen in mucosal layer. According to Hoon these are tubercles in lympatics which traverse the muckar layer, because the muscular wall itself offers resistance to the spreads of infection. The existence of hyperplasic intestinal tuberculosis was denied by certain western authorities. Decline in the incidence of abdominal tuberculosis in western countries stopped further investigations on the subjects, but Anand in 1956 in his Hungarian lecture published sound and very convincing data, proving high criteria set from the diagnosis and suggested that the regional ileitis was stage in healing process of intestinal tuberculosis. The scientific explanation regarding the fibrosis and actions of caseation was put forward by wig and other. They have performed the operation in two stages. In first stage with a short circuiting operation they removed the glands in the vicinity of diseased segment and studied their histology and bacteriology. Next right hemicolectormy was performed and specimen studied in the same way. Definite cassation and bacteria were present in biopsy of first operation. After second operation the specimen showed no tubercles or hyalinization of tubercles. Anand also confirmed his findings whenever two stage operations was performed and stated further that even in absence of cassation, necrosis and demonstrable bacteria at the site of lesion, Enough evidence suggest to stamp it as tuberculous lesion.[10] Aschoff believed that ulceration is the result of cassation in sub mucosa breaking through the mucosa. But other believed that the caseation is not essential factor in producing ulcers. Activity in sub mucosa in much extensive that in the breach in mucosa would indicate. This explains the formation of under mind ulcers. The ulcers were lying along the long axis of the intestine and were oval in shape with larger diameter at right angles to the long axis of gut. In Sclerotic type (Stricture); the most common site is being the ileum. Rt Hemicolectomy[11] is still the choice of operation for many surgeons in hyperplasic variety. The results were satisfactory. The wide resection and end to end anastomoses[12] was the choice of operation for many surgeons as it is less time consuming and less traumatizing to the patient. After the resection end to end anastomoses was performed (Iliecolostomy). All patients should be given antituberculosis drug treatment[13] postoperatively.

Conclusion

In abdominal tuberculosis, surgical treatment followed by antituberculosis drug treatment will give excellent result.[14]

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