

**FREQUENCY OF ABDOMINAL TUBERCULOSIS IN CASES PRESENTING WITH  
ACUTE ABDOMEN**Dr. Rana Muhammad Ikram\*<sup>1</sup>, Dr. Muhammad Saqib Jamil<sup>2</sup> and Dr. Rashid Hussain<sup>3</sup>

Dera Ghazi Khan Medical College.

\*Corresponding Author: Dr. Rana Muhammad Ikram

Dera Ghazi Khan Medical College.

DOI: <https://doi.org/10.17605/OSF.IO/ST4X7>

Article Received on 21/04/2019

Article Revised on 11/05/2019

Article Accepted on 01/06/2019

**ABSTRACT**

**Objective:** This study was performed for determination of frequency of abdominal tuberculosis among 200 patients presented with acute abdomen at Department of surgery, DHQ Hospital D.G. Khan. It is a cross-sectional study performed within 6 months duration from November 2017 to April 2018. Patients with age above 15 years of either gender were included in the study. Informed consent was taken from all the enrolled patients. Detailed history and examination was performed on every patient. Baseline laboratory investigation i.e. CBC, ESR, LFTs, RPM, PT, aPTT, Electrolytes and ECG was done for all patients. The diagnosis of acute abdomen was made on history of absolute constipation, abdominal pain etc., and examination and through abdominal ultrasonography. All the patients underwent open surgical laparotomy. Biopsy sample was collected and sent to pathology laboratory. Abdominal tuberculosis was confirmed on biopsy report. Patients having other systemic illnesses, IHD, end stage renal disease, liver cirrhosis, malignancy and those who not fit for surgery were excluded from the study. In this current study there were 200 cases that presented with acute abdomen. The mean age was  $35.46 \pm 11.24$  years. Biopsy report of 44 (22%) patients was positive for Abdominal Tuberculosis. There was no significant difference of gender, although it was observed that Abdominal Tuberculosis was more common in patients with age less than 40 years. **Conclusion:** We concluded that prevalence of Abdominal TB was very high in patients presented with acute abdomen, there is no difference with respect to gender distribution. 30-40 years age was most commonly involved.

**KEYWORDS:** Acute abdomen, TB, Omentum tissue, extra-pulmonary tuberculosis (EPTB).**INTRODUCTION**

Tuberculosis is one of the disease found from the ancient times and its number was decreased markedly in the developed countries due to effective chemotherapeutic regimen and better diagnostic facilities. But in the recent times due to emergence of HIV and multiple co morbid conditions its number is again on the rise and data is widely variable worldwide.<sup>[1,2]</sup>

Extra pulmonary tuberculosis (EPTB) can involve any part of the body including gastrointestinal (GI) tract. It can not only involve peritoneum to lead for adhesion formation but can also lead to lymph node enlargement or intestinal obstruction; which can in turn present as a surgical emergency the form o acute abdomen. The initial clinical presentations are nonspecific as the disease involves multiple sites with different morphology. No single laboratory investigation is pathognomonic. Bacterial culture and tissue histopathology are considered as confirmatory investigations; though they are time consuming, and immunological tests are expensive.<sup>[3,4]</sup>

Moreover, Abdominal Tuberculosis with an acute abdomen presents as an enormous challenge to the surgeon. A surgeon has to rely on his clinical judgement and surgical acumen to determine the extent of surgical management in an unprepared, physiologically compromised patient in the emergency setting.<sup>[5,6]</sup>

**OBJECTIVE**

To determine the frequency of abdominal tuberculosis in cases presenting with acute abdomen.

**METHODOLOGY**

It is a cross-sectional study performed within 6 months duration from November 2017 to April 2018. Patients with age above 15 years of either gender were included in the study. Informed consent was taken from all the enrolled patients. Detailed history and examination was performed on every patient. Baseline laboratory investigation i.e. CBC, ESR, LFTs, RPM, PT, aPTT, Electrolytes and ECG was done for all patients. The diagnosis of acute abdomen was made on history of absolute constipation, abdominal pain etc., and

examination and through abdominal ultrasonography. All the patients underwent open surgical laparotomy. Biopsy sample was collected and sent to pathology laboratory. Abdominal tuberculosis was confirmed on biopsy report. Patients having other systemic illnesses, IHD, end stage renal disease, liver cirrhosis, malignancy and those who not fit for surgery were excluded from the study. Ethical review letter was approved from ethical review committee of hospital. Data was analyzed with the help of SPSS version 22.0.

## RESULTS

We enrolled 200 patients who presented with acute abdomen. The mean age was  $35.56 \pm 11.24$  years. Abdominal TB was detected in 44 (22%). There were

122 (61%) male and 78 (39%) female. There was no significant difference in abdominal TB with respect to gender. Abdominal TB was significantly high among patients with age group of 30-40 years. There were 18/44 (40.9 %) patients those lie in this age group with p value of 0.04. Out of 44 patients, 21 were having concomitant Pulmonary Tuberculosis.

**Table 1: Abdominal TB and Gender**

Gender	Abdominal TB		Total
	Yes	No	
Male	28	94	122 (61%)
Female	16	62	78 (39%)
<b>Total</b>	<b>44 (22%)</b>	<b>156 (78%)</b>	<b>200 (100%)</b>

**Table 2: Abdominal TB and age groups.**

Age groups	Abdominal TB		Total
	Yes	No	
15-29 years	12	49	61
30-40 years	18	55	73
>40	14	52	66
<b>Total</b>	<b>44 (22%)</b>	<b>156 (78%)</b>	<b>200 (100%)</b>

p value = 0.04, p=0.03

**Table 3: Abdominal TB and pulmonary TB.**

Pulmonary TB	Abdominal TB		Total
	Yes	No	
Yes	21	10	31
No	23	146	169
<b>Total</b>	<b>44 (22%)</b>	<b>156 (78%)</b>	<b>200 (100%)</b>

**Table 4: frequency of abdominal TB detection.**

	Frequency	Percentage
Yes	44	22%
No	156	78%
<b>Total</b>	<b>200</b>	<b>100%</b>

## DISCUSSION

Tuberculosis is one of the most common causes of chronic infectious diseases which are present since the ancient times. TB is a great mimicker of all the diseases and its presentation is widely variable and can present in almost any scenario. Extra pulmonary tuberculosis especially abdominal, can present either as a spectrum of vague unidentified and unspecified symptoms or can present as a surgical emergency in the form of acute abdomen.

In the preset study the abdominal TB was detected in 44 (22%) of the cases presented with acute abdomen. This finding was close the findings of the previous studied carried out with similar protocol. According to a study done by Farooq T et al abdominal TB was seen in 54 (29.03%) of cases presented as acute abdomen.<sup>7</sup> In another study by Shaikh MS et al, in cases presenting

with acute abdomen, tuberculosis was seen in 32 (16%) of the cases.<sup>8</sup> Even higher results were seen in another study, that was also seen in Pakistan, where abdominal tuberculosis was seen in 19 (51.4%) of cases presenting with acute abdomen.<sup>6</sup> The reason of this difference can be explained by the difference in the prevalence of the disease and also reveal the underlying tuberculosis program of the vicinity.

Abdominal tuberculosis was more seen in cases that had age group 30-40 years as compared to more where it was seen to affect 18 (40.9%) cases with p value of 0.04. This was also seen by the studies done by various authors where the most prevalence of this disease was seen in age group of 20 to 40 years; though not all of these studies find this difference as statistically significant.<sup>9-11</sup>

Detection of abdominal TB in cases with acute abdomen was also more in cases that had associated pulmonary disease as well; though this difference was not statistically significant (p= 0.21). A study by Sheikh MS et al they found 12 (37.5%) of cases that had associated pulmonary TB as well.<sup>18</sup> Other studies done in the past have revealed this number in 7-40% of the Cases.<sup>12-15</sup>

## CONCLUSION

We concluded that prevalence of Abdominal TB was very high in patients presented with acute abdomen, there is no difference with respect to gender distribution. 30-40 years age was most commonly involved.

## REFERENCES

1. Rathi P, Gambhire P. Abdominal Tuberculosis. *J Assoc Physicians India*, 2016; 64(2): 38-47.
2. Debi U, Ravisankar V, Prasad KK. Abdominal tuberculosis of the gastrointestinal tract: revisited. *World J Gastroenterol*, 2014; 20(40): 14831-40.
3. Evans RP, Mourad MM, Dvorkin L, Bramhall SR. Hepatic and Intra-abdominal Tuberculosis: 2016 Update. *Curr Infect Dis Rep*, 2016; 18(12): 45.
4. Vaid U, Kane GC. Tuberculous Peritonitis. *Microbiol Spectr*, 2017; 5: 123.
5. Lewinsohn DM, Leonard MK, LoBue PA. Official American Thoracic Society/Infectious Diseases Society of America/Centers for Disease Control and Prevention Clinical Practice Guidelines: diagnosis of tuberculosis in adults and children. *Clin Infect Dis.*, 2017; 15; 64(2): 111-5.
6. Khan MA, Majeed FA, Ahmed M, Khan MN. Intestinal tuberculosis presenting as acute abdomen. *JPMA*, 2012; 62(3): 2411.
7. Farooq T, Rashid MU, Nasir M, Mustafa G, Farooq A. Incidence of abdominal tuberculosis in 186 cases of acute abdomen presenting in our surgical emergency department. *APMC*, 2010; 4(1): 28-32.
8. Shaikh MS, Dholia KR, Jalbani MA, Shaikh SA. Prevalence of intestinal tuberculosis in cases of acute abdomen. *Pak J Surg*, 2007; 23(1): 52-6.
9. Ahmed M, Mainghal MA. Pattern of mechanical Intestinal Obstruction in adults. *J Coll Physicians Surg Pak*, 1999; 9: 441-3.
10. Muneef MA, Menish Z, et al. Tuberculosis in the belly, a review of 46 cases. *Scand J Gastroenterol*, 2001; 36(5): 528-32.
11. Wadhwa N, Agarwal S, Mishra K. Reappraisal of Abdominal Tuberculosis. *J Indian Med Assoc*, 2004; 102(1): 31-2.
12. Sultan M. Incidence of Intestinal Tuberculosis in patients presenting as acute emergency with signs of obstructions/peritonitis. [Dissertation for College of Physicians & Surgeons Pakistan].
13. Boukthir S, Murad SM, et al Abdominal tuberculosis in children. Report of 10 cases. *Acta Gastroenterol Belg*. 2004; 67(3): 245-9.