

Abdominal Tuberculosis in Surgical Emergency; One year experience at Lahore General Hospital, Lahore

SIKANDAR HAYAT GONDAL, AHMAD NAEEM AKHTAR, AMNA JAVED, MARIUM IFTIKHAR CH., SHOAB AZAM, HABIBA SHAKEEL, SIDRA NOREEN, NAZIA ZAIB, ANAM NAZ, NOOR-UL-AIN, FAIZA ZAHEER.

ABSTRACT

A Prospective study was conducted at surgical unit 3 of Lahore General Hospital, Lahore from January 2015 – January 2016. 95(100%) laparotomies were performed in ER during this period. 18 (19%) proved to be TB, 11 males (61%) and 7(39%) females, with ages ranging from 18-35 years. All the patients were confirmed histopathologically. The findings were intestinal perforation In 7(39%), adhesions in 5(27%), strictures in 2(11%) and hypertrophic gut obstruction in 4(22%). Out of 18 cases in 10 patients (56%) ileostomy were performed 2 (11%) patients were dealt with primary repair of perforation 3 (17%) were treated with limited right hemi colectomy in 2(11%) cases, stricture plasty was performed and in one (5%) case only biopsy was taken. One patient died post operatively.

Keywords: Abdominal tuberculosis, laparotomy, ileostomy

INTRODUCTION

Since the time of hypocrites (460-370bc) human mankind had to travel a long way and pay a high price to reach the present day tuberculosis management. (Sleem and Azhar, 2013) Abdominal tuberculosis is a serious health threat to surgical teams specially in developing world. It constitutes 12% of extra pulmonary tuberculosis cases. 33% cases of abdominal tuberculosis are associated with chest tuberculosis (Connie, 2013). WHO estimates that one third of world population is infected with mycobacterium tuberculosis with the highest prevalence in South East Asia. (Nair, 21010) 16% of all the cases of intestinal obstruction are due to tuberculosis.(Sleem et. al., 2007) The number of admissions in surgical wards of tertiary care hospitals in Lahore have raised up to 4 times in recent years⁶. The purpose of this study was to analyze the cases of abdominal tuberculosis presented in surgical emergency of LGH, Lahore.

METHODS AND MATRIAL

All the patients who underwent emergency laparotomy in Lahore General Hospital and later on histopathologically proved to be tuberculosis were included in the study after taking a written consent. Patient's bio data, findings, procedure, complications and management with results were entered into a proforma. The results were analyzed by using SPSS 20 by biostatistician.

*Department of Surgery, Lahore General Hospital, Lahore.
Correspondence to Dr. Sikandar Hayat Gondal, Associate
Professor Surgery Email: gondalsikandar@yahoo.com*

RESULTS

Study started in January 2015 and continued till January 2016 in which 95 (100%) laparotomies were performed including 62(65%) males and 33(35%) females. Out of 95 laparotomies (100%), 18 (19%) proved to be tuberculosis. Out of these 18 cases, 11(61%) were males and 7females. (39%) Ages in males were ranging from 18 to 32 and in females 15 to 35 years. 7 patients (39%)were presented with perforation, 5 with (27%) tuberculosis adhesive disease and 4 cases(22%) were presented with intestinal obstruction due to hypertrophic tuberculosis disease. 2 patient(11%) were having strictures. 1 patient died.

DISCUSSION

This was a prospective study that was carried out in surgical unit 3 of PGMI Lahore from January 2015 to January 2016 during which 95 laparotomies were performed in surgical emergency. Out of 95 laparotomies 18 proved to be cases of abdominal tuberculosis. That means 19% Patients who underwent emergency laparotomy in this hospital were having a complication of abdominal tuberculosis. A similar result was claimed by D.C. Clarke et al in 2007 from South Africa in which 12 cases out of 65 were proved to be tuberculosis. The mean age in our study remained 29 years which is comparable with that of Muhammad Saiq et al in 2012 as they noticed a mean age of 26 in their study of 233 cases (Saiq et al., 2012). Similarly a mean age of 26 was depicted by Phillip L Chiya et al in their study of 118 cases in 2013 (Chalya et al.,2013). Uzunkoy et al in 2004 reported the similar range of age group with the figure of 39 as median age.

The male to female ratio in this study remained 1.5:1 that shows male preponderance, a well-known fact regarding abdominal tuberculosis. The comparable figures have been depicted by workers world over. As Philipo et al, Azizullah et al, and Gondal et al mentioned figures of 1.8:1, 1.5:1 and 2:1 respectively (Chalya et al., 2013; Abbasi et al., 2004; Gondal et al., 2000)

Out of 18 (100%) cases 7(38%) presented with intestinal perforation's similar results were reported by Arif et al in 2008 in their study of 34 cases in which they reported 14 out of 34 proved to be intestinal perforation(Arif et al., 2008). Even higher figure was reported by Awasthi et al in 2015 where it was reported that 31 perforations were found out of 39 tuberculous abdomens (Awasthi et al., 2015).

5 cases (27%) presented with adhesive bowel disease. In study done by Zhao et al in 2015 reported that solid mass formations leading to adhesive bowel disease were in 9 cases out of 15 which was 60% Zhao et al., 2015). HK et al in 1996 from Koria noticed 2 cases out of 9 patients were having multiple adhesions in his series of 23 patients (HK et al., 1996). Even higher figures was reported by Uzunkoy et al in 2004 in their series of 11 patients in which they mentioned 72% cases were having adhesive bowel disease (Uzunkoy et al., 2004). Arif et al in his study done in 2008 reported 4 patients (30.74%) out of 14 with abdominal tuberculosis with adhesive bowel disease (Arif et al., 2008)

We noticed 4 (22%) cases in which laparotomy were performed for intestinal obstruction and the cause proved to be iliocecal hypertrophy.

This is the most acceptable form of intestinal tuberculosis as is easily resectable with good results. During study period one patient was expired having multiple perforations resulting into toxemia and MODS.

CONCLUSION

It was concluded that after trauma abdominal tuberculosis has become number one cause of

emergency laparotomy in surgical emergency and patients with multiple perforations are at higher risk of developing MODS and death.

REFERENCES

1. Abbasi, A., Javaherzadeh, M., Arab, M., Keshoofy, M., Pojhan, S., Daneshvar, G., (2004) Surgical treatment for complications of abdominal tuberculosis. *Arch Iranian Med.* 7(1): 57-60.
2. Arif, A.U., Shah, L.A., Sadiq A. M., (2008) The frequency and management of intestinal tuberculosis; A hospital based study. *JPMI.* 22(2): 152-156
3. Awasthi, S., Sexena, M., Ahmad, F., Kumar, A., Dutta, S., (2015) Abdominal tuberculosis: A diagnostic dilemma. *JCDR.* 9(5):01-03
4. Chalya, P.L., Mchembe, M.D., Mshana, S.E., Rambau, P., Jaka, H., Mabula, J.B. (2013) *WJES.* 8:12
5. Connie. A. H., (2013). Extrapulmonary Tuberculosis. University of Florida, Southeast National TB Center.
6. Gondal, S.H., Gulshan, S., Naseeb, U. (2000) Intestinal tuberculosis as an abdominal emergency. *Pak. Postgrad Med J.* 11:103-105.
7. HK, Ha., Ji, Jung., Lee, MS., et al., (1996). CT differentiation of tuberculous peritonitis and peritoneal carcinomatosis. *AJR. Am J Roentgenol.* 167: 743-8
8. Nair. N., Wares. F., Sahu. Suvanand. (2010) Tuberculosis in WHO South Asia- Region. *Bulletin of WHO.* 88:164-164. doi: 10.2471/BLT.09.073874
9. Sleem. A. and Azhar. M., (2013). The Next Pandemic- Tuberculosis: The oldest disease of mankind rising one more time. *BJMP.* 6(2): a 615
10. Sleem. M. S., Dholia. K. R., Jalbani. A. M., Ali. S. S., (2007) Prevalence of intestinal tuberculosis in cases of acute abdomen. *Pak. JS.* 23(1)
11. Sanai, F.M., and Bzeiza, K.I., (2005) Systemic review: Tuberculous peritonitis- presenting features, diagnostic strategies and treatment. *A P T.* 22:685-700
12. Karstaedt. A. S., (2013) Extrapulmonary tuberculosis among adults: experience at Chris Hani Baragwanath Academic Hospital, Johannesburg, South Africa. *S Afr Med J.* 104(1):22-4. doi: 10.7196/samj.6374.
13. Zhao, J., Cui, M.Y., Chan, T., Mao, R., Luo, Y., Barua, I., Chen, M., Li, Z.P., Feng, S.T. (2015). Evaluation of intestinal tuberculosis by multi-slice computed tomography enterography. *BMC.* 15: 577.