



Figure 1: Axial contrast enhanced computerised tomography shows irregular hypodense peripherally enhancing lesions in spleen, fluid in anterior perihepatic space

requested for malignant cells and mycobacterium which was negative.

The final diagnosis was multiple splenic tubercular abscesses with tubercular ascites. We put him on DOTS category two anti tubercular therapy. He was doing well on follow up which was regular for three month.

Discussion

Extra pulmonary tuberculosis comprises almost 15% of all cases of tuberculosis and among them abdominal organ involvement was observed in 11%.^[1] Splenic tuberculosis is a rare clinical condition usually encountered during miliary TB especially in immunocompromised patients in which this is third most (75%) commonly involved organ after lung 100% and liver 82%.^[2] The other form is primary involvement of spleen which is extremely rare even rarer if it occurs in immunocompetent person as in our case who presented with tubercular ascites. Only few literatures has mentioned about splenic TB in immunocompetent patients with ascitis.^[3] Tuberculous ascites/peritonitis is always secondary to other tuberculous lesions. This appears to be more common in females than in males, because in females it commonly reaches the peritoneum through tubal infection and attacks the tubes during the sexually active period of life. It may be due to either a local extension from tuberculous lymph node, fallopian tube, tuberculous intestinal ulcer or may be caused by haematogenous or lymphatic spread from distant sources of infection.^[4] Although this patient had no previous medical history of pulmonary or extra pulmonary tuberculosis, his only complain was ascites and due to tubercular etiology we searched other site which came out to be splenic abscess as tuberculosis on ultrasonography of the abdomen. Ultrasonography of the spleen can be useful in diagnosis of splenic TB and therapeutic response assessment, it is cost effective and non invasive modality and especially relevant as screening tool. However, histopathological

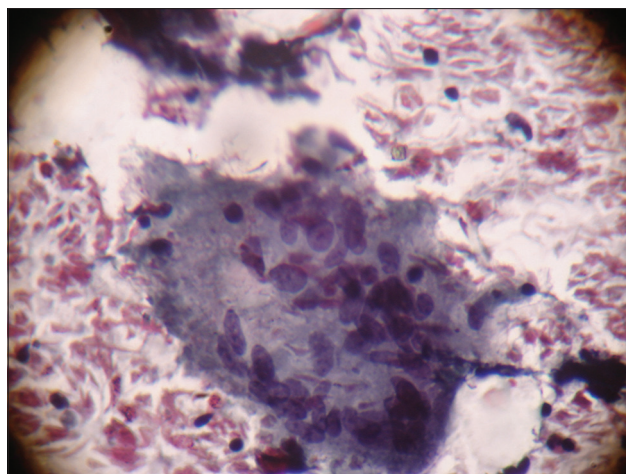


Figure 2: Tuberculous spleen-epithelioid cell granulomas, cells shows sleeper sole shape vesicular nuclei and abundant cytoplasm (FNAC, x40, MGG)

diagnosis is required to pinpoint the aetiology. Tubercular infection can be histopathologically identified by the presence of typical caseation along with granulomas of epithelioid cells and langhans giant cells.^[5,6] Molecular techniques like real-time PCR can be used for detection of tubercle bacilli directly on clinical specimens but they have limited role in resource poor, developing countries like India. Final diagnosis may need splenectomy although CT guided splenic puncture as aspiration biopsy is emerging as more ideal and popular methods nowadays.^[1] Laparoscopy has role in diagnosis of splenic T.B. and has proved to be a minimally invasive approach avoiding unnecessary splenectomy.^[7]

Peritoneal tuberculosis occurs in three forms: Wet type with ascitis, dry type with adhesions, and fibrotic type with omental thickening and loculated ascites. The postulated mechanisms by which the tubercle bacilli reach the peritoneum and gastrointestinal tract are: (i) hematogenous spread from the primary lung focus in childhood, with later reactivation; (ii) ingestion of bacilli in sputum from active pulmonary focus; (iii) direct spread from adjacent organs; and (iv) and through lymph channels from infected nodes.^[8]

Splenic abscess which was turned out tubercular on histological examination and our assumption is tubercular ascites may be extension from splenic abscess.

References

1. Ray S, Kundu S, Goswami M, Sarkar D, Saha M. Isolated tubercular splenic abscess: Can we defer splenectomy? Our single experience with anti-tuberculous therapy alone. *Indian J Med Microbiol* 2012;30:101-3.
2. Zhan F, Wang CJ, Lin JZ, Zhong PJ, Qiu WZ, Lin HH, *et al.* Isolated splenic tuberculosis: A case report. *World J Gastrointest Pathophysiol* 2010;1:109-11.
3. Sahoo SP, Shukla HS. Abdominal tuberculosis. In: Sharma SK, Mohan A, editors. *Tuberculosis*. New Delhi: Jaypee Brothers;

2001. p. 187-200.
4. Kundu PR, Mathur SK, Singh S, Duhan A, Agarwal G, Sen R. Isolated tuberculous splenic abscess in an immunocompetent individual. *Asian Pac J Trop Med* 2011;4:81-2.
 5. Gupta A, Hunjan PS, Jain SK, Kaza RC, Kumar V. Tubercular splenic abscess in an immunocompetent patient-A rare entity. *Southeast Asian J Trop Med Public Health* 2006;37:1196-8.
 6. Imani Fooladi AA, Hosseini MJ, Azizi T. Splenic tuberculosis: A case report. *Int J Infect Dis* 2009;13:e273-5.
 7. Dixit R, Arya MK, Panjabi M, Gupta A, Paramez AR. Clinical profile of patients having splenic involvement in tuberculosis. *Indian J Tuberc* 2010;57:25-30.
 8. Sharma MP, Bhatia V. Abdominal tuberculosis. *Indian J Med Res* 2004;120:305-15.

How to cite this article: Lonkar Y, Parikh S, Kumar S, Diwan SK, Bhake A. Splenic Tuberculosis Presenting as Ascites in Immunocompetant Patient. *Ann Med Health Sci Res* 2013;3:116-8.

Source of Support: Nil. **Conflict of Interest:** None declared.