Diagnosis of Abdominal Tuberculosis Needs Attention

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Dear Editor,

We read with keen interest the article titled “Study of surgical emergencies of tubercular abdomen in developing countries” by Wani et al. published in the May–June 2015 issue of the Indian Journal of Surgery. The authors have presented 50 patients of tubercular abdomen. The inclusion criteria for patient selection and the diagnostic criteria used to label the patient as a case of abdominal tuberculosis (AT) has not been specified. The authors mentioned rates of positivity of PCR and IgM ELISA for blood and ascitic fluid and its sensitivity. The details of test-kit used for IgM ELISA have not been mentioned. Absolute number of tests on ascitic fluid is not mentioned; ascites was present in a small proportion of patients ($n=8$). It is not mentioned what gold standard was used for calculating sensitivity for these tests. The authors have not taken into consideration the specificity of these tests for diagnosis of AT. Histopathology test was reported to confirm the diagnosis in 97.8 % patients; however, the histopathological criteria for diagnosing AT have not been mentioned. The proportion of patients who required surgery on failure of initial conservative antituberculosis treatment (ATT) has not been mentioned. Clarification on these points will enhance the value of the observations.

A number of tests are being used for confirming the clinical diagnosis of AT. AT being an infective disease, the demonstration of *Mycobacterium tuberculosis* (MT) from the abdominal lesions would be an ideal criterion for diagnosis; however, the yield of MT on tissue sections is poor [1]. The demonstration of AFB on Ziehl-Nielsen staining or demonstration of caseating granulomas in abdominal specimen is the next acceptable level of evidence for diagnosis for AT. Diagnosis on the basis of non-specific granulomas would be a matter of conjecture as several other diseases—notably Crohn’s disease, Ulcerative colitis, *Salmonella*, *Yersinia*, *Histoplasma capsulatum*, and *Mycobacterium capsulatum* infection—can produce granulomas in the intestine, lymph nodes, and/or peritoneum. It is difficult to establish evidence-based diagnosis of AT due to difficulty in obtaining specimen for testing and low positivity of accepted criteria. The CT scan is a valuable adjunct in diagnosing AT as it can document typical lesions in intestine, lymph nodes, and omentum, and collections of exudates in abdomen. CT facilitates image guided FNAC and aspiration to collect specimen for cytological/ microbiological tests. Demonstration of MT, AFB, caseating granulomas in specimens from other organ/systems like sputum, urine, and FNAC from extra-abdominal lymph nodes, and biopsy from endometrium may corroborate the CT and increase the level of confidence of the diagnosis of AT. Laparoscopy has an important role in demonstrating the typical abdominal lesions and facilitating collection of exudates/tissue specimen for testing. Commercial serological tests provide inconsistent and imprecise findings resulting in highly variable values for sensitivity and specificity. WHO has strongly recommended that these tests not be used for the diagnosis of pulmonary and extra-pulmonary TB [2]. Reported high positivity of PCR from blood (72 %) is an interesting finding, and its value in diagnosis of AT needs further evaluation. Empirical treatment with ATT should be prescribed only after due diligence, based on available

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clinical-radiological evidence, preferably CT findings, and progress should be closely monitored. Indiscriminate use of ATT have many unwarranted consequences—delay in the diagnosis and treatment of real disease [3], emergence of drug resistance, and exposure to unnecessary drug toxicity which may be especially deleterious in immunocompromised patients.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflicts of interest.

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