



Diagnosis of abdominal tuberculosis by mini-laparoscopy

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An 86-year-old woman presented with a 4-week history of fever and unexplained weight loss. Her medical history was notable for psoriasis vulgaris, and treatment with the TNF inhibitor adalimumab was initiated 3 months earlier. Laboratory examination revealed elevated AST (82 U/l), ALT (59 U/l), C-reactive protein (164 mg/l), and erythrocyte sedimentation rate (77 mm). A mini-laparoscopy was performed as described previously using a 2.75 mm trocar, a 2.3-mm Veress needle, and a 1.9-mm laparoscope [1]. It revealed multiple, small, whitish nodules scattered over the liver and spleen (Fig. 1). Hepatic biopsies showed acid-fast bacilli by direct microscopy, tested positive for *Mycobacterium tuberculosis* by PCR and mycobacterial culture later revealed a fully susceptible *M. tuberculosis* strain. The patient was placed on a standard regimen with rifampicin,

isoniazid, ethambutol, and pyrazinamide and had a good clinical response to treatment. This case demonstrates that mini-laparoscopy is a valuable tool in the diagnostic workup of patients with suspected abdominal tuberculosis, which is notoriously challenging due to nonspecific clinical, laboratory and radiological features [2]. Laparoscopic techniques offer the opportunity of targeted biopsies for histopathologic and microbiologic analyses under visual control and have a high diagnostic yield in patients with abdominal tuberculosis [3]. Compared to conventional laparoscopy, mini-laparoscopy is a less invasive technique, which requires smaller insertions to the abdominal wall due to ultra-fine instrumentation and can be safely conducted outside of the operation room with the patient under conscious sedation.

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Fig. 1 Minilaparoscopy showing multiple whitish nodules scattered over the liver

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Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Consent to participate and consent to publish The patient consents to having the data published.

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