

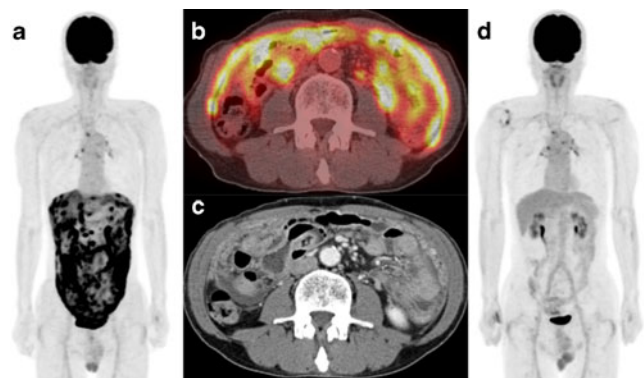
Treatment monitoring with ^{18}F -FDG PET/CT in a patient with peritoneal tuberculosis

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A 71-year-old man with a history of spinocellular carcinoma of the right cheek presented with a 2-month history of mild abdominal pain and persistent slight fever. Blood sampling data showed signs of inflammation (C-reactive protein 6.78 mg/ml). Tumour marker levels were normal. Abdominal ultrasonography showed a small amount of perihepatic and pelvic free fluid, increased mesenteric echogenicity and mesenteric lymphadenopathy. ^{18}F -FDG PET/CT showed increased tracer accumulation in the entire abdominal region (a), associated with the peritoneum and diaphragm (b). CT revealed uniform thickening of the peritoneum (c). Lung findings were unremarkable. Testing of the ascites fluid for acid-resistant bacilli performed twice was negative. Cytological examination revealed mesothelial hyperplasia with inflammatory changes. Diagnostic laparoscopy showed multiple nodules spread throughout the peritoneum. Histology revealed caseating granulomas with epithelioid and Langerhans-type giant cells. Ziehl-Neelsen staining for acid-fast bacilli was negative, but culture of the peritoneal specimen revealed *Mycobacterium tuberculosis* which resulted in a final diagnosis of peritoneal tuberculosis (PT). The patient's fever and abdominal pain gradually decreased during antituberculosis treatment. After 6 months of therapy, ^{18}F -FDG PET/CT showed diminished peritoneal uptake (d) and peritoneal thickening. This case indicates the clinical utility of ^{18}F -FDG PET/CT for detection and monitoring of PT.

PT is an uncommon presentation of extrapulmonary infection caused by *M. tuberculosis*, which was more commonly seen before the introduction of effective antituberculosis drugs



[1, 2]. A similar peritoneal appearance may occur in carcinomatosis, mesothelioma, or nontuberculous peritonitis [3–5].

Conflicts of interest None.

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