

PICTURES IN DIGESTIVE PATHOLOGY

Non-absorbable suture granuloma mimicking a retroperitoneal metastatic implant in a patient with sigmoid neoplasm

Alberto Martínez-Martínez and Jade García-Espinosa

Department of Radiodiagnosis. Complejo Hospitalario Universitario de Granada. Granada, Spain

INTRODUCTION

A high percentage of patients operated on for colorectal carcinoma (around 40%) develop local recurrence or metastatic disease (1). The formation of a granuloma from non-absorbable suture material within the abdominal cavity is an uncommon condition following intestinal surgery. On occasion, such reactions are mistaken for abscesses or tumors, with patients undergoing unnecessary therapies (2).

Some cases have been reported of a granuloma arising from non-absorbable suture or textile material that mimicks a neoplastic lesion (1-3), their location being exceptional in the retroperitoneum mimicking a tumor implant in patients having undergone colectomy for colorectal cancer.

CASE REPORT

A 66-year-old male with a history of sigmoid adenocarcinoma exhibited a preoperatively absent retroperitoneal nodule at his first follow-up CT scan three months after surgery (Fig. 1). PET-CT confirmed the presence of a retroperitoneal hypermetabolic focus (Fig. 2). A tumor implant

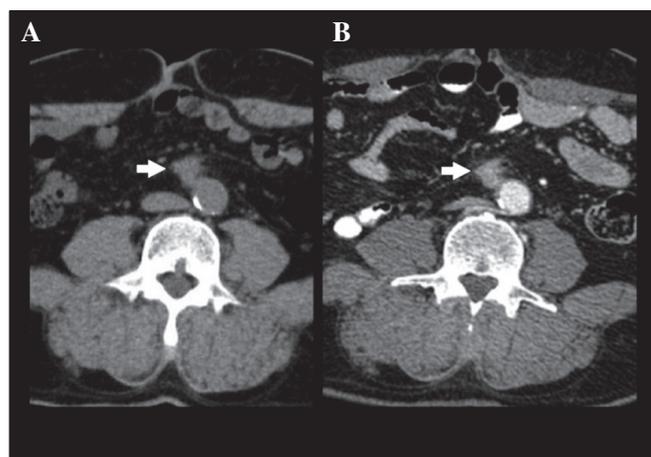


Fig. 1. Abdominal CT scan without (A) and with (B) an intravenous contrast agent where a retroperitoneal nodule (arrow) may be seen adjacent to the aorta, displaying an irregular contour and homogeneous contrast enhancement.

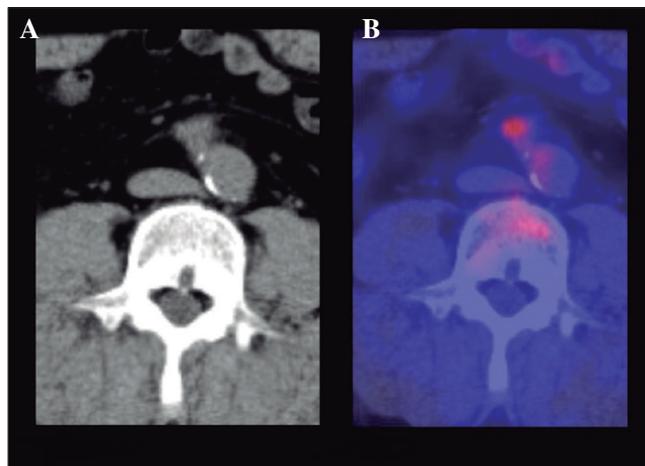


Fig. 2. 18-FDG PET-CT scan with a CT image (A) and a fusion image (B) focused on the lesion described in figure 1. A hypermetabolic "hot spot" with a high Standard Uptake Value (SUV) of 5.04 may be seen, which suggested retroperitoneal neoplastic involvement.

was suspected which prompted resection. A pathological study demonstrated fibroadipose tissue with foreign body (suture)-related granulomatous infiltration and absence of tumor cells.

DISCUSSION

The development of a foreign body granuloma from non-absorbable suture material is a relatively uncommon condition that most commonly occurs in response to silk suture in patients with clinical impairment or immunocompromised subjects (1,2). It is characterized by a build-up of histiocytes and multinucleated giant cells around the foreign body. Its primary importance lies on its ability to mimic tumors on imaging techniques.

Peritoneal cases mimicking a tumor in patients with colorectal cancer have been reported (1,4), their retroperitoneal location being exceptional.

Most common descriptions on CT images reflect a nodule with annular enhancement with an iodinated contrast, and peripheral 18-FDG uptake on PET scans (1,4). Homogeneous contrast enhancement and 18-FDG uptake occurs less frequently (1).

Foreign body granuloma from suture is a condition potentially indistinguishable from tumor recurrence or metastatic disease on CT and PET-CT scans, thus requiring pathology confirmation.

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