A woman with a history of colorectal carcinoma presenting with an abdominal mass

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DESCRIPTION

A 72-year-old woman presented with an abdominal pain in the left lower quadrant, fever (39°C) and nausea. In 2010 she underwent a laparoscopic right hemicolectomy for a pT3N0 adenocarcinoma. The clinical examination was not suggestive for an acute abdomen. Infection parameters were elevated (C reactive protein 116 mg/L; reference value <10 mg/L). Differential diagnosis was internal herniation or diverticulitis.

A CT scan (figure 1) revealed an abdominal mass in the mesentery of the small intestine suspicious for recurrence of colonic adenocarcinoma. The mass was surrounded by multiple pathologically enlarged lymph nodes; there were no signs of distant metastases in liver or lungs. An elective, explorative laparotomy was performed. A tumour, measuring 7 cm, was detected in the mesentery of the small intestine and resected radically (figure 2).

Histopathology showed a mesenteric (or deep) fibromatosis with maximum diameter of 9 cm, radical resection margins and 14 benign lymph nodes. Molecular examination detected a mutation

Figure 1 Coronal view of CT of the abdomen, portal venous phase, showing known cholecystolithiasis and an unsharp delineated hypodense mass (*)—diameter of 8 cm—with suggestion of infiltration of surrounding fat. An intra-abdominal abscess is unlikely. The mass is probably primarily located in the mesentery of the small intestine; there is a close relation with or even invasion of the small intestine (#). Multiple pathologically enlarged lymph nodes are present (indicated by the arrow). Furthermore there are no signs of distance metastasis. Image is suspicious for recurrence of colonic adenocarcinoma.

Figure 2 Resected segment of the small intestine and mesenteric tumour (indicated by the arrows).

of the β -catenine gene (codon 41A of exon 3), supporting the diagnosis of deep fibromatosis. After multidisciplinary consultation no adjuvant therapy was given.

Mesenteric fibromatosis, a desmoid tumour, concerns an infrequent diagnosis. Desmoid tumours are sometimes associated with familial adenomatous polyposis, which is caused by a mutation in the APC gene. A sporadic mutation in exon 3 of the β -catenine gene is mostly causative for desmoid tumours. Three codon mutations of this exon are identified: 41A, 45F and 45P.¹

Desmoid tumours do not have the ability to metastasise, but often tend to recur locally despite previous radical resection.²

Five-year recurrence-free survival is favourable in non-mutated or 41A-mutated tumours (57%).¹ This endpoint can also be calculated using a nomogram based on size, site and age:³ 90% in this case.

Learning points

- ▶ Mesenteric fibromatosis, or desmoid tumours, are rare but should be considered in patients with severe abdominal pain and mesenteric mass on CT scan.
- ▶ Despite radical surgical resection recurrence rates are high.
- ▶ Molecular examination and a prognostic nomogram can help predict recurrence-free survival rate, therewith guiding adjuvant treatment.

Contributors All authors wrote and reviewed the manuscript.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

To cite: Schipper RJ, Stassen LP, Smidt ML, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-201743

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