Intraabdominal Desmoid Tumor

Clinical History:

was admitted to the hospital, complaining of a three-day history of abdominal pain and diarrhea. Clinical examination revealed a 18 cm-mass at the lower abdomen. Biological data were normal. In the past he underwent a prophylactic colectomy for familial polyposis.

Imaging Findings:

A patient was admitted to the hospital, complaining of a three-day history of abdominal pain and diarrhea. Clinical examination revealed a 18 cm-mass at the lower abdomen. Biological data were normal. In the past he underwent a prophylactic colectomy for familial polyposis.

Plain radiograph of the abdomen (scout view image) shows a large rounded mass at the lower abdomen displacing adjacent bowel loops.

Plain and contrast enhanced CT scan of the abdomen shows a solid, inhomogeneous, well defined intramesenteric soft tissue mass of 18 cm diameter (arrows) presenting with low attenuation on plain CT scan and poor enhancement after intravenous injection of iodinated contrast material. There is no visible capsule around the tumor.

Contrast enhanced CT scan of the upper abdomen visualizes small bowel loops of normal aspect.

Based on clinical history and the radiological findings, the diagnosis of intramesenteric desmoid in the context of Gardner Syndrome was proposed.

Discussion:

Desmoid tumors are uncommon benign lesions characterized by proliferation of fibroblastic cells and abundant collagen fibers. They present as an isolated lesion or in 45% of cases as a part of the Gardner Syndrome. Gardner Syndrome is an autosomal-dominant colonic polyposis with extracolonic manifestations including osteomas, cutaneous cysts and desmoid tumors. The pathogenesis of desmoid tumors remains unknown, but various causes have been proposed such as hormonal factors, previous surgery, previous trauma, or genetic disorders. The latter seems most likely in Gardner Syndrome.

Desmoid tumors are classified as extra-abdominal, intra-abdominal or located within the abdominal wall. Abdominal wall desmoids are mostly located within the rectus muscle sheath with or without intra-abdominal extension. Intra-abdominal desmoids arise from the mesentery, retroperitoneum or pelvis. The most common site for mesenteric desmoids is at the base of the small bowel mesentery. Desmoids may compress or displace adjacent bowel loops or ureters leading to intestinal obstruction or hydronephrosis.

Despite their benign appearance, desmoid tumors are locally aggressive and tend to recur in 25% to 65% of cases, but without distant metastases.

For many years, the presence of a mesenteric desmoid tumor and its precise extension could only be proved surgically. Nowadays CT and MRI are the most suited techniques for the diagnosis and follow-up of desmoid...
tumors. CT and MRI allow accurate staging i.e. definition of extent and relationship with adjacent structures. MRI
enables better tissue characterization of desmoids by demonstrating intratumoral areas of low signal intensity on all
pulse sequences. The low signal intensity is due to the presence of abundant collagen within the lesion. Tumor
recurrence is a frequent finding after surgery and easily detected on MRI.

**Differential Diagnosis List:** Intraabdominal desmoid tumor

**Final Diagnosis:** Intraabdominal desmoid tumor

**References:**

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Kawashima A, Goldman SM, Fishman EK et al. CT of intraabdominal Desmoid Tumors; is the Tumor Different in

Magid D, Fishman EK, Jones B et al. Desmoid Tumors in Gardner Syndrome: Use of Computed Tomography. AJR

Vandevenne JE, De Schepper AM, De Beuckeleer L et al. New concepts in understanding evolution of desmoid
**Figure 1**

**Description:** (scout view image) shows a large rounded mass at the lower abdomen displacing adjacent bowel loops. **Origin:**
Description: Plain and contrast enhanced CT scan of the abdomen shows a solid, inhomogeneous, well defined intramesenteric soft tissue mass of 18 cm diameter (arrows) presenting with low attenuation on plain CT scan and poor enhancement after intravenous injection of iodinated contrast material. There is no visible capsule around the tumor. Origin:
Figure 3

Description: Origin:
**Figure 4**

Description: Contrast enhanced CT scan of the upper abdomen visualizes small bowel loops of normal aspect. Based on clinical history and the radiological findings, the diagnosis of intramesenteric desmoid in the context of Gardner Syndrome was proposed. **Origin:**