Clinical history

A 70-year-old male patient presented at the emergency department with heavy abdominal pain and fever since one day. Physical examination revealed a supple abdomen, but heavy pain and rebound tenderness in the right fossa. Because of the symptoms, a contrast-enhanced CT scan of the abdomen (Fig. 1) was performed.

Imaging findings

Figure 1: Contrast-enhanced CT scan of the abdomen.

Fig. 1a: Transverse image at the level of the cecum: Presence of diffuse infiltration of the pericecal fatty tissue. Retroceccally located appendix with thickened wall (arrow). The appendix has a maximal outer diameter of 1.5 cm.

Fig. 1 b: Reformatted image in the coronal plane (slice thickness of 22.5 mm). The appendix is seen, surrounded by diffusely infiltrated fatty tissue. An appendicolith is observed at the base of the appendix (arrow).

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The CT images are suggestive for acute appendicitis. An appendectomy was performed. Pathology showed a Goblet cell carcinoid tumor of the appendix. Reintervention with right hemicolectomy was performed. There was no further evidence of malignancy.

Comment
The goblet cell carcinoid was first described in 1969, and almost exclusively seen in the appendix. Most patients present with signs and symptoms of acute appendicitis due to obstruction of the lumen of the appendix.
The initial imaging manifestations may reflect inflammatory disease, caused by the tumor obstructing the base or a portion of the appendix. In these cases the tumor may not be readily evident at sonography or CT scan.
Cross-sectional imaging will typically reflect the infiltrative nature of the tumor, with mild but diffuse mural thickening.
At pathology, goblet cell carcinoid tumors are usually located near the tip of the appendix. Macroscopically, there is no well-defined mass in most of the cases. Areas of mural indurations or diffuse fibrous thickening of the appendix may provide clues to the tumor at surgery.
Metastasis occurs in nearly 20% of the cases. The most common routes of metastatic spread are lymphatic and intraperitoneal invasion. Ovarian and peritoneal metastatic diseases are often diagnosed before lymph node enlargement is seen.
Diagnosis of cecal involvement is important since with this involvement a more radical surgical approach will be considered, instead of the typical simple appendectomy.
Goblet cell carcinoid should be considered as a low-grade malignancy, so most patients undergo a right hemicolecctiony, followed by adjuvant chemotherapy in some selected cases.

Key words
Goblet cell carcinoid – appendix

References

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