Duodenal lipoma: an incidental finding

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Section: Abdominal imaging
Area of Interest: Abdomen
Procedure: Contrast agent-oral
Imaging Technique: CT
Special Focus: Pathology Case Type: Clinical Cases
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Patient: 68 years, male

Clinical History:

A 68-year-old man with a history of colon cancer stage IIIC referred to our radiology department for control computed tomography (CT) imaging to evaluate whether the status has changed. He had been treated with adjuvant chemotherapy and had a history of right hemicolectomy two years before.

Imaging Findings:

During the evaluation the contrast enhanced CT images we incidentally detected two hypodense ovoid well-circumscribed lesions located in the third portion of the duodenum (Fig. 1a, b). These lesions measured 14x9 mm and 11x8 mm respectively. The mean HU for two lesions were measured as 82.56 Hounsfield units (HU) (Fig. 2 a, b). Therefore, we decided that the lesions were duodenal lipomas. These lesions did not cause an obstruction in the duodenum.

Discussion:

Duodenal lipomas are relatively rare benign tumours of the gastrointestinal tract. The most common site is the colon (64%), followed by small intestine (26%), duodenum (4%), stomach (3%) and oesophagus (2%). In the duodenum, lipomas tend to be noted mostly in the second part and are most often situated in the sub-mucosal plane, but can also be sub-serosal and can be sessile or pedunculated [1, 2].

Duodenal lipomas are incidental diagnoses on imaging studies as they are asymptomatic. On ultrasonography, the typical duodenal lipoma is intensive homogeneous hyperechoic. Its appearance on CT is characteristic demonstrating low density (typically approximately - 65 to - 120 HU) [3, 4]. On magnetic resonance images, the lipomas have high signal on T1 and T2-weighted images and saturate on fat saturated sequences [5]. The lipomas are usually asymptomatic. The occurrence of symptoms, if any, largely depends on the size of the lesion. Tumours greater than 4 cm can produce symptoms of abdominal pain and discomfort or cause hypochromic microcytic anaemia due to ulceration and bleeding or intestinal obstruction due to intussusception [6]. Symptomatic duodenal lipomas warrant treatment. The recommended treatment is endoscopic excision if the lesion is polypoid and of manageable size. But, for large and sessile lesions; increase the risk of bleeding and perforation, thus surgical excision would be the preferred approach [7].

In conclusion, duodenal lipomas are uncommon benign tumours that can be asymptomatic or present signs and symptoms of upper gastrointestinal bleeding and obstruction. Thus, lipomas incidentally detected in imaging studies
and particularly small incidental lipomas have no risk of bleeding and/or obstruction as in our case.

**Differential Diagnosis List:** Duodenal lipoma, Liposarcoma, Angiolipoma

**Final Diagnosis:** Duodenal lipoma

**References:**


**Figure 1**

Description: The axial CT image shows the first hypodense lipoma lesion in the third portion of the duodenum (arrow). **Origin:** Pirimoglu B, Ataturk University School of Medicine Department of Radiology
**Description:** The axial CT image shows the second hypodense lipoma lesion in the third portion of the duodenum (arrow). **Origin:** Pirimoglu B, Ataturk University School of Medicine Department of Radiology
Description: The axial CT image shows the Hounsfield Unit (HU) measurement of the first lesion. It indicates the lipoma. Origin: Pirimoglu B, Ataturk University School of Medicine Department of Radiology
Description: The axial CT image shows the Hounsfield Unit (HU) measurement of the second lesion. It indicates the lipoma. Origin: Pirimoglu B, Ataturk University School Medicine Department of Radiology