Gastro-duodenal Lipomatosis in Familial Multiple Lipomatosis

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Abstract
Objective: To present a case of gastro-duodenal lipomatosis associated with familial multiple lipomatosis (FML). Clinical Presentation and Intervention: A 58-year-old male presented with FML that manifested as multiple, painless, subcutaneous lipomas on his body; his mother had subcutaneous lipoma without a diagnosis of gastro-duodenal lipomatosis. His lipid profile was normal. Abdominal computed tomography showed multiple, submucosal, polypoid lesions (of uniform density) of fat in the stomach and duodenum, and a small, similar lesion in the ileum. Conclusion: This case shows that gastrointestinal lipomatosis can manifest as FML.

Case Report
A 58-year-old Caucasian male was hospitalized for follow-up purposes; at his previous hospitalization, a diagnosis of multiple gastric lipomas had been made based on endoscopic ultrasound presentation that revealed a few, oval, sharply defined, hyperechoic lesions arising from the submucosal layer of the gastric wall. Upon admission, he had no symptoms. His body mass index was 29. Physical examination showed multiple, painless, elastic, subcutaneous nodules on his arms, thighs, and trunk (Fig. 1a). Ultrasonography revealed sharply defined, oval, subcutaneous lesions, of the same echogenicity as the surrounding subcutaneous fatty tissue (Fig. 1b). The patient stated that he had noticed the first nodule on his right lower arm when he was 25 years old and that, thereafter, multiple nodules appeared. He had a positive family history of skin lipomas; his mother had a slow-growing, solitary, painless, subcutaneous lipoma on her upper right arm. Computed adipose tissue of the arms, legs, and trunk [1]. Gastric lipomas are rare tumors, accounting for approximately 5% of gastrointestinal-tract lipomas and 1–3% of all gastric tumors [2]. It has been reported that, on gross pathologic specimens, these tumors have the appearance of subcutaneous fat [2]. Commonly, gastric lipomas are solitary lesions, but cases of multiple gastro-duodenal lipomas have also been reported [2]. We report here on a case of gastro-duodenal lipomatosis associated with FML.

Introduction
Familial multiple lipomatosis (FML) is a rare, hereditary, autosomal dominant, benign disease, which manifests as multiple painless lipomas in the subcutaneous adipose tissue of the arms, legs, and trunk [1]. Gastric lipomas are rare tumors, accounting for approximately 5% of gastrointestinal-tract lipomas and 1–3% of all gastric tumors [2]. It has been reported that, on gross pathologic specimens, these tumors have the appearance of subcutaneous fat [2]. Commonly, gastric lipomas are solitary lesions, but cases of multiple gastro-duodenal lipomas have also been reported [2]. We report here on a case of gastro-duodenal lipomatosis associated with FML.
Tomography (CT) was performed for gastrointestinal screening, but did not reveal gastrointestinal lipomas. No abdominal tenderness or palpable abdominal mass was observed. Complete blood count and biochemical laboratory findings were normal. Abdominal CT demonstrated a round, sharply contoured, polypoid lesion, of uniform density, of fat (on average –109 HU) in the gastric fundus (arrow) on the axial section (a), and fatty, polypoid lesions located in the gastric fundus, antrum, and ileum (arrows) in the coronal plane (b).

Discussion

This was a case of FML in which gastroduodenal lipomatosis was also diagnosed. The glucose and lipid profiles of the patient were normal, similar to previous cases [1, 3]. The superior evidence of mass density, shape, homogeneity, location, and extensions of this were well visualized on CT, similar to what has been reported previously [2].

Gastrointestinal lipomas associated with FML like this case are very rare, with only 9 cases having been reported, namely, colonic lipoma [3], intestinal lipoma [4, 5], and brain and cardiac lipoma [6, 7]. Our case is similar to that in Bilgic et al. [3], which is a report on a patient with multiple gastroduodenal lipomas associated with abdominal visceral adiposity and a solitary, subcutaneous lipoma on his neck; the patient’s father had mobile, nontender, sub-
cutaneous lesions, with no evidence of gastrointestinal lipomas [3].

No karyotype or molecular genetic analysis was conducted for our patient; this was performed in several published studies on FML [7, 8]. Further investigations are needed to understand the genetic base of FML and its possible association with gastrointestinal or other organ-seated lipomatosis.

**Conclusion**

This case revealed the gastrointestinal lipomatosis associated with FML and diagnosed on CT. We recommend the use of CT for patients with subcutaneous lipomas, in order to explore the possibility of diagnosing gastrointestinal lipomas.

**References**