Gastric liposarcoma presenting as a huge pedunculated polyp

A 46-year-old woman was admitted to a local medical center with abdominal pain and discomfort, which she had experienced for 6 months. Her medical history was unremarkable. Esophagogastroduodenoscopy (EGD) showed a huge pedunculated polyp located in the stomach body. The patient was referred to our hospital for endoscopic submucosal dissection (ESD) with the working diagnosis of hyperplastic polyp.

On repeat EGD, an 8-cm pedunculated and lobulated polyp with broad base was observed in the posterior wall of the distal gastric body (Fig. 1). Laparoscopic distal gastrectomy was performed because the polyp was too large for ESD. On gross examination, the tumor, which measured 7 cm, was ill-defined with a fibro-fatty appearance and mixed elastic-soft and solid consistency. Microscopically, the tumor consisted of mature adipocytes, with variation in cell size and scattered, bizarre, hyperchromatic stromal cells in a fibrillary and collagenous background (Fig. 2). The tumor cells showed positive nuclei staining for MDM2 (Fig. 3) and CDK4 (Fig. 4). The final histopathological diagnosis was that of a well-differentiated liposarcoma. The patient was considered for adjuvant treatment because the resection margin was positive for liposarcoma.

Liposarcoma accounts for 15%–20% of all sarcomas and usually affects the extremities and retroperitoneum [1]. However, gastric liposarcoma is extremely rare, with only 13 cases reported in the literature. The recently updated World Health Organization classification recognizes four major subtypes of liposarcoma: atypical lipomatous tumor/well-differentiated, de-differentiated, myxoid, and pleomorphic liposarcoma [2, 3]. Although one-third of well-differentiated liposarcomas show local recurrence, metastasis is virtually never seen unless de-differentiation occurs [3]. The most important prognostic factor is anatomical location [1, 4]. Overall mortality ranges from 0% for atypical lipomatous tumor of the extremities to nearly 80% for tumors occurring in the visceral sites and retroperitoneum [2, 3].

Fig. 1 Endoscopic view showing a huge pedunculated polyp.

Fig. 2 Microscopic findings showed variable-sized, mature adipocytes and scattered, bizarre, stromal cells in a fibrillary and collagenous stroma.

Fig. 3 Immunohistochemical stain shows nuclear positivity of bizarre, stromal cell for MDM2.

Competing interests: None
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References

2 Fletcher CDM, Bridge JA, Hogendoorn PCW et al. WHO classification of tumours of soft tissue and bone. 4th edn. Lyon: IARC; 2012
3 Dei Tos AP. Liposarcomas: diagnostic pitfalls and new insights. Histopathology 2014; 64: 38–52