Combined procedure with intraoperative duodenoscopy to determine the local resectability of duodenal gastrointestinal stromal tumor’s: case report and review of the literature

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BACKGROUND

Gastrointestinal stromal tumors (GISTs) represent 1 to 3% of all gastrointestinal tract neoplasms. The most common localizations are the stomach (60-70%) and the small intestine (20-25%). Duodenal GISTs account for 3 to 5% of all GISTs, most commonly arising from the second portion. They are often diagnosed incidentally. If symptomatic, gastrointestinal bleeding and abdominal discomfort are the most frequently reported symptoms. Endoscopic ultrasound (EUS) with fine needle aspiration (FNA) is now the gold standard for diagnosis. The treatment of a primary localized GIST is the complete resection with clear margins but without lymphadenectomy because of the rare lymphatic infiltration.

METHODS

We are reporting the case of a 42 years old woman who presented with massive gastrointestinal bleeding. Emergency esogastroduodenoscopy (EGD) revealed bleeding from a lesion of the second part of the duodenum, which was controlled by clipping. The diagnosis of a GIST was made later using EUS with FNA. PET-CT (Fig.1) did not show any other lesions and a primary surgical approach was indicated. The patient underwent laparotomy, prepared to undergo a Whipple procedure (WP). However, intraoperative EGD (Fig. 2) with external manual palpation (Fig. 3) helped to exactly localize the margins of the lesion, especially what concerns its relationship to the ampulla of Vater. This combined procedure made us change our strategy and try a local resection (LR). Intraoperative fresh frozen histologic evaluation confirmed the R0-resection.

RESULTS

There was no intra- or post-operative complication noted. The patient was discharged home at post-operative day 7. The 3 and 6-months follow-up CT-scan-controls showed no signs of recurrence.

DISCUSSION

According to the literature and comparing WP and LR for duodenal GISTs, LR should be the procedure of choice whenever possible, given the good oncologic outcomes and the lower morbidity. The need of WP is associated with tumors of the second part of the duodenum and the proximity to the ampulla of Vater. In our case, the tumor was exactly in this region. However, the use of an intraoperative EGD allowed us to determine the exact localization of the papilla and its relationship to the tumor, and thus, to perform a LR with R0-margins. Therefore, intraoperative EGD is absolutely mandatory in patients with duodenal GISTs of uncertain local resectability.

REFERENCES

2. Sugase T et al. Digestion 2016;94:30