DIAGNOSIS OF GASTRIC GIST

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BACKGROUND: Gastrointestinal stromal tumors (GIST) are difficult to diagnose particularly when EUS-FNA is not available to get cytological samples. However, GIST needs a definitive diagnosis because bears a malignant potential.
The aim of this study was to evaluate the clinical values of EUS and buttonhole biopsy on the diagnosis of gastric GIST.
METHODS: Data of 6 GIST patients (3 male, 3 female, mean age: 60.3 yr, range: 43-72 yr) from 2011 were retrospectively analyzed in this pilot study. Conventional radial endoscopic ultrasonography (GF-UE160, Olympus) was performed in all patients. Buttonhole biopsy was carried out in all but one patient who was operated on because of repeated gastrointestinal bleeding. First the mucosa over the mass was cut with needle-knife, then a deeper specimen was taken from the submucosal lesion. The GISTs were surgically resected in all but one case who refused operation. The diagnosis of EUS, the preoperative and the postoperative histological results were compared.
RESULTS: The main symptoms were abdominal pain and occult gastrointestinal bleeding. All lesions were protruding mass lesions with normal mucosal appearance. The tumor location were fundus (1 case), corpus (1 case), antrum (4 cases). The mean tumor size was 33x33 (range 20x17 – 60x42) mm. All lesions were presented as hypoechoic, inhomogenous masses with distinct border originated from the muscularis propria layer on endoscopic ultrasonography. Cystic degeneration was observed in GIST larger than 4 cm. Buttonhole biopsy were successful in all but one patients, where tissue specimens were undiagnostic. Bleeding complicated the biopsy in 3 cases, which was treated endoscopically by placing haemoclips over the cut.
The accordance rate between preoperative EUS diagnosis and the pathological diagnosis of the buttonhole biopsy was 80 %. The histological result of the surgical specimen confirmed the preoperative histological diagnosis in all case. The mitotic rate of all lesions was <5 mitosis/50 HPF.
CONCLUSIONS: GIST lacks of characteristic features of clinical symptoms. Diagnostic EUS is a sensitive method for the identification of GIST. Buttonhole biopsy is an effective technique for histological diagnosis of GIST, although the complication rate is high.

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