

Endosonographic evaluation of esophageal and gastric submucosal lesions: Histopathological and long-term results

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Background and Aim: Gastrointestinal submucosal lesions (SML) include benign, potentially malignant, and malignant lesions. Usually SMLs are asymptomatic and noticed incidentally. Endosonography (EUS) is the key evaluation method for these lesions. EUS-FNA and EUS-guided tru-cut biopsy has the pivotal role in evaluation of SMLs. In this study, we evaluated the endosonographic features, fine needle biopsy and endoscopic submucosal dissection and/or surgical outcomes of SMLs for a 5-year lasting period. Methods: Patients who were referred for EUS were divided according to lesion size. Large lesions were examined by with radial system and small lesions were evaluated with miniprob endosonography. The lesions originated by the first 3 layer and requiring dissection were referred to endoscopic submucosal dissection. Fine needle aspiration procedure was performed to the fourth layer originated lesions or these patients underwent surgical operation. Suitable patients were included in the follow-up program. Results: 4 of 33 suspected submucosal esophageal lesions (12%) were found to be endosonographically normal, and 10 of 33 lesions (30.3%) were detected compression of the external sources. 5 of all lesions (15%) were mucosal, 2 (6%) were originated from Layer 2, 4 (12%) were from Layer 3 and 8 (24%) were from Layer 4. 4 of 57 (7%) suspected submucosal gastric lesions were found to be endosonographically normal, and 5 of 57 lesions (8.7%) were detected compression of the external sources. 11 of all lesions (19%) were mucosal, 5 (8.7%) were originated from Layer 2, 23 (40%) were from Layer 3 and 8 (14%) were from Layer 4. 5 of 11 mucosal gastric lesion was MALT lymphoma. One lesion was diagnosed as linitis plastica. Due to classification easiness, layer 4 enhancing pancreatic rest lesions were added to lesions of Layer 3. Discussion: SML can occur anywhere in the gastrointestinal tract and are located beneath the normal epithelial layer, which explains why a tissue diagnosis is difficult to obtain with routine biopsies. EUS can distinguish intramural lesion from extramural compression. Moreover, it allows allocation of intramural lesions to a specific layer of the GI wall and offers additional information as to whether a lesion could be benign or malignant. Endosonography also provides the optimal means of tissue acquisition.

Keywords: endosonography, gastrointestinal submucosal lesions