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How Can We Avoid Unnecessary Surgical Resection for Gastric Subepithelial Tumours? A Multicenter Retrospective Study in Korea

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Abstract

Background: Gastric subepithelial tumors (SETs) are often encountered in endoscopy without any special symptoms.The effectiveness of current diagnostic tissue sampling techniques for gastric SETs is limited. Better tissue acquisition methods are required to improve the diagnostic yield in patients with gastric SETs.The purpose of this study is to assess the safety and diagnostic effectiveness of an endoscopic incisional target biopsy technique for gastric SETs.

Methods: This study was intended for patients with gastric SETs with failed tissue diagnosis by conventional forceps biopsy. Gastric SETs were assessed by endoscopic incisional target biopsy in order to obtain preoperative pathological diagnosis. Endoscopic ultrasound (EUS) and abdominal CT, were also part of the assesment, in accordance with diagnostic management algorithms.

Results: Endoscopic incisional target biopsy provided sufficient tissue specimens for definite pathologic diagnosis in 17 of 19 cases (diagnostic yield 89.5%). Contrary to widely-held assumptions, there were so many benign SETs even in over 2 cm sized SET. Only three out of 19 cases (15.8%) were diagnosed as GIST. In all GISTs, the size of the incisional target biopsy samples enabled immunohistochemical analysis (100%) and the evaluation of malignancy risk was performed by measuring the mitotic index in two cases (66.7%). The mean procedure time for incisional target biopsy was 11.4 ± 5.0 minutes. Six procedure-related minor bleedings occurred during or after the procedure.

Conclusion: Endoscopic incisional target biopsy appears to be an easy to perform, effective, safe and less aggressive methods to determine the definitive pathological evaluation and malignant risk. It can be a reliable alternative to Fine Needle Aspiration (FNA) or (Trucut Biopsy) TCB, providing larger specimens that improve pathologic yields. To avoid unnecessary surgical resection of gastric SETs, we recommend tissue diagnosis by endoscopic incisional target biopsy.

Key words: subepithelial tumour, incisional biopsy, stomach