

**EFFICACY OF ENDOSCOPIC ULTRASONOGRAPHY COMPARED TO
CONVENTIONAL ENDOSCOPY FOR TUMOR INVASION DEPTH IN EARLY
GASTRIC CANCER.**

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Background and Aim: Accurate assessment of submucosal invasion is essential before considering the option of endoscopic submucosal dissection. Endoscopic ultrasonography (EUS) is thought to be the most reliable nonsurgical method available for evaluation the depth of invasion of primary gastric cancers, particularly for early (T1) lesions. The findings on endoscopy can also predict tumor stage. The aim of this study was to compare the diagnostic accuracy of EUS with that of endoscopic staging of invasion depth in early gastric cancer (EGC).

Methods: Between May 2009 and May 2013, 300 patients were underwent EUS and curative treatment for EGC at Yangsan Pusan National University Hospital, Busan, Korea. We reviewed the medical records of 300 patients and compared preoperative EUS and endoscopic staging with the pathological staging of the resected specimen. Endoscopic staging was conducted on the basis of endoscopic findings of mucosal disease (smooth surface protrusion or depression, slight marginal elevation, smooth tapering of converging folds) and submucosal disease (irregular surface, marked marginal elevation, and clubbing, abrupt cutting, or fusion of converging folds).

Result: The mucosal cancer was histologically confirmed in 216 cases (72.0%) and that of a submucosal disease in 84 cases (28.0%). The overall accuracy of EUS staging was 79.0% (63/300) and that of endoscopic staging was 73.7% (221/300) ($p=0.12$). The diagnostic accuracy of mucosal disease was significantly higher than that of submucosal disease (EUS staging 84.3% vs. 65.5, $p<0.01$ and endoscopic staging 80.6 vs. 56.0, $p<0.01$). The miniprobe EUS and smaller than 3 cm were associated with higher diagnostic accuracy in predicting the tumor invasion.

Conclusion: The accuracy of EUS for evaluating the invasion depth of EGC does not differ with conventional endoscopy. The routine use of staging EUS for early gastric cancer is questionable.