Endosonographic Features of a Calcified Mucinous Gastric Carcinoma

Calcification within gastric adenocarcinoma is an infrequent occurrence (1–3). We report here a 68-year-old woman with calcified gastric cancer in whom the intramural calcifications were clearly demonstrated by endoscopic ultrasonography (EUS). An upper gastrointestinal endoscopy revealed a large fungating tumor in the lesser curvature of the antrum. Although a plain radiography showed no features of calcification, a computed tomography revealed multiple punctuate calcifications within the stomach wall. By EUS their location in the gastric wall was clearly demonstrated (Figure **1**). The resected specimen revealed a mucinous T3-stage adenocarcinoma. Although mucin pools containing signet ring cells and calcifications were present in the deeper layer, the poorly differentiated adenocarcinoma was recognized as a mucosal element (Figure **2**). The metastasis to the regional lymph nodes was also confirmed.

To our knowledge, this is the first report of endosonographic demonstration of a calcified gastric carcinoma. With its unique ability to visualize each layer of the stomach wall (4, 5), EUS was superior to other imaging techniques, such as computed tomography, and we could easily diagnose the location of the calcifications as well as the depth of tumor invasion.

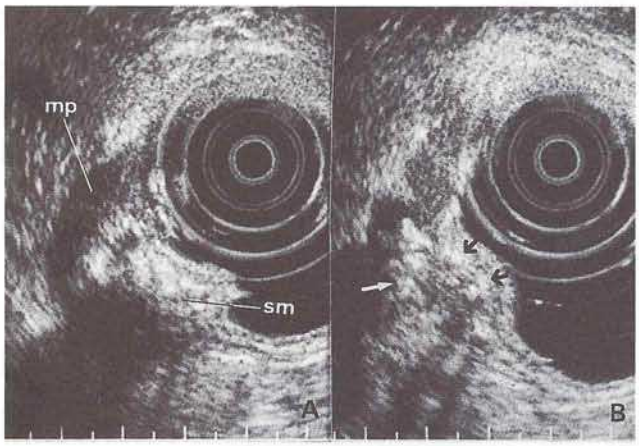

Figure 1: EUS image of the tumor, demonstrating intramural distribution of the punctuate shape calcifications with acoustic shadows (A & B). sm: submucosa; mp: muscularis propria; black arrows: calcifications in the sm layer; white arrow: calcification in the muscularis propria.

References

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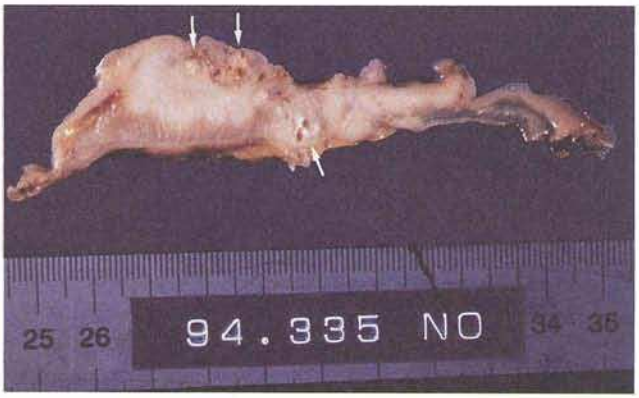

Figure 2a: Cut surface of the resected specimen corresponding to the presence of calcifications (arrows).

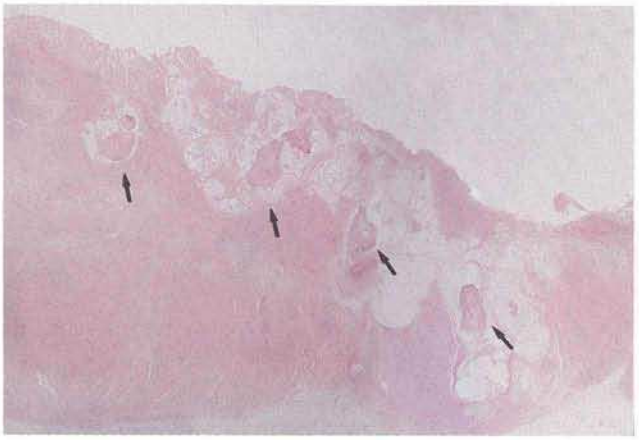

Figure 2b: Histologic features of the tumor showing extensive areas of mucin pools with scattered calcifications (arrows). H & E, × 5.