

American Gastroenterological Association Institute Medical Position Statement on the Management of Gastric Subepithelial Masses

This document presents the official recommendations of the American Gastroenterological Association Institute (AGA Institute) on "Management of Gastric Subepithelial Masses." It was approved by the Clinical Practice and Economics Committee on January 19, 2006, and by the AGA Institute Governing Board on April 20, 2006.

Masses arising outside the gastric wall or within the wall but beneath the gastric surface epithelium are commonly found during upper gastrointestinal endoscopy, although their precise incidence is unknown. Standard forceps biopsy is unlikely to provide a tissue diagnosis, leading to diagnostic uncertainty for the physician and the patient. The differential diagnosis of these masses is broad and ranges from clinically insignificant to malignant conditions, underlining the importance of making an accurate diagnosis.

Endoscopy alone is not reliable for detecting the etiology of a subepithelial gastric mass. Cross-sectional imaging techniques such as transabdominal ultrasonography, computed tomography, and magnetic resonance imaging are adequate for detecting the presence of normal or abnormal structures outside the gastric wall but do not reliably distinguish between the various causes of masses arising within the gastric wall. Furthermore, when only normal structures are seen on cross-sectional imaging, it is difficult to know if the subepithelial "mass" seen on endoscopy is from external compression by a normal structure or an intramural lesion that was not seen on cross-sectional imaging. In this situation, endoscopic ultrasonography (EUS) should be performed to confirm that the subepithelial "mass" seen on endoscopy is indeed due to external compression by a normal structure and not from an intramural lesion that was not identified on cross-sectional imaging.

EUS is currently the most accurate imaging test for detecting the component of the gastric wall from which the mass arises and the echogenicity of the mass, factors that can narrow the differential diagnosis. EUS imaging alone is not sufficient to provide an accurate diagnosis of hypoechoic intramural masses, however.

Hypoechoic intramural masses are the most clinically important lesions within the gastric wall because of their malignant potential. Gastrointestinal stromal tumors, carcinoid tumors, lymphomas, and metastases from a distant primary malignancy can have significant implications for the patient and are the main reason to pursue

a tissue diagnosis of this type of mass whenever possible. Submucosal masses may be amenable to endoscopic snare resection, whereas masses arising from the muscularis propria can be sampled with EUS-guided fine-needle aspiration or core biopsy. Use of immunocytochemistry is helpful in distinguishing between the potential causes of hypoechoic intramural masses. Unfortunately, the true malignant potential for individual gastrointestinal stromal tumors cannot be accurately determined using current imaging and noninvasive sampling methods.

Patients with symptoms that can be attributed to the mass should undergo endoscopic or surgical resection of the mass. Current evidence does not allow making a firm recommendation on the optimal management of the patient with an incidentally detected, asymptomatic gastric subepithelial mass. Options include performing no further testing or monitoring, following the mass with periodic endoscopic or EUS surveillance, and endoscopic or surgical resection of the mass (see Table 1). These management options should be discussed with the patient and whenever possible guided by EUS imaging and tissue sampling information, because the clinical significance of the mass is highly variable.

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The Medical Position Statements (MPS) developed under the aegis of the American Gastroenterological Association Institute (AGA Institute) and its Clinical Practice and Economics Committee (CPEC) were approved by the AGA Institute Governing Board. The data used to formulate these recommendations are derived from the data available at the time of their creation and may be supplemented and updated as new information is assimilated. These recommendations are intended for adult patients, with the intent of suggesting preferred approaches to specific medical issues or problems. They are based upon the interpretation and assimilation of scientifically valid research, derived from a comprehensive review of published literature. Ideally, the intent is to provide evidence based upon prospective,

randomized placebo-controlled trials; however, when this is not possible the use of experts' consensus may occur. The recommendations are intended to apply to health care providers of all specialties. It is important to stress that these recommendations should not be con-

strued as a standard of care. The AGA Institute stresses that the final decision regarding the care of the patient should be made by the physician with a focus on all aspects of the patient's current medical situation.

Table 1. Summary of the Recommendations for the Management of Asymptomatic Gastric Subepithelial Masses

No further investigation or follow-up	Follow with periodic endoscopy and/or EUS or resection	Resection
Normal extramural organ	Gastrointestinal stromal tumor <3 cm in diameter	Carcinoid in absence of hypergastrinemia
Lipoma	Glomus tumor	Gastrointestinal stromal tumor ≤3 cm diameter
Duplication cyst		
Pancreatic rest		
Inflammatory fibroid polyp		
Neural origin tumors (eg, Schwannoma)		

perspective. Knowing the relationships between disease and virology is critical for understanding pathogenesis; knowledge of such relationships should drive approaches to therapy. Observational correlative studies like our recent paper, as well as the studies summarized in the letter by Bruni et al¹ play an important role in hypothesis generation despite their inherent problems. In my opinion, HCV treatment trials should incorporate ancillary studies such as in situ hybridization for HCV replicative intermediates, to maximize the extent the trial advances our present perspective.

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1. Bruni L, de Sanjose S. Hepatitis C infection and lymphomas: is there any benefit in viral treatment? *Gastroenterology* 2006;131:685–686.
2. Pal S, Sullivan DG, Kim S, Lai KK, Kae J, Cotler SJ, Carithers RL Jr, Wood BL, Perkins JD, Gretch DR. Productive replication of hepatitis C virus in perihepatic lymph nodes in vivo: implications of HCV lymphotropism. *Gastroenterology* 2006;130:1107–1116.
3. Sung VM, Shimodaira S, Doughty AL, Picchio GR, Can H, Yen TS, Lindsay KL, Levine AM, Lai MM. Establishment of B-cell lymphoma cell lines persistently infected with hepatitis C virus in vivo and in vitro: the apoptotic effects of virus infection. *J Virol* 2003;77:2134–2146.

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Correction

Nanda SK, Herion D, Liang TJ. Src Homology 3 Domain of Hepatitis C Virus NS5A Protein Interacts With Bin1 and Is Important for Apoptosis and Infectivity. *Gastroenterology* 2006;130:794–809.

The title in the above article should have appeared as follows:

The SH3 Binding Motif of HCV NS5A Protein Interacts With Bin1 and Is Important for Apoptosis and Infectivity

Correction

American Gastroenterological Association Institute Medical Position Statement on the Management of Gastric Subepithelial Masses; and American Gastroenterological Association Institute Technical Review on the Management of Gastric Subepithelial Masses. Hwang JH, Rulyak SD, Kimmey MB. *Gastroenterology* 2006;130:2215–2228.

In the above article, Stephen D. Rulyak should have appeared as Stephen J. Rulyak.

On page 2216, in Table 1, the recommendations for resection of gastrointestinal stromal tumors should be GISTs > 3 cm diameter.