Gastric Antral Vascular Ectasia: Relevance of the Histopathologic Diagnosis

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Background
Gastric Antral Vascular Ectasia (GAVE) is traditionally considered an endoscopic diagnosis. Because the role of the gastric biopsy is uncertain, and the relatively obscure criteria proposed by Gilliam (Dig Dis Sci 1989; 34:885) are rarely used by practicing pathologists, gastroenterologists often rely on purely endoscopic impressions to diagnose GAVE.

Based on the observation that many patients with a clinical suspicion of GAVE have no supporting histopathologic findings and often other types of gastric pathologic lesions are detected, we suspected that the biopsy may have a greater role in the diagnosis of this entity than generally appreciated.

Aims
This study was designed to test the hypothesis that patients with a clinical or endoscopic suspicion of GAVE but no diagnostic findings in their gastric biopsy specimens may represent a different subset of subjects from those with confirming histopathologic findings.

Study Design and Methods
We used the Miraca Life Sciences database to extract histopathologic, demographic, and clinical information from all patients who had an esophagogastroduodenoscopy (EGD) with gastric biopsies obtained between 1.2008 and 6.2013; patients with a history of upper gastrointestinal cancer or surgery were excluded.

Using a combination of code-based searches and Boolean logic natural language queries, we extracted all patients who had a clinical history or an endoscopic description suggestive of GAVE.

We then stratified these patients by the histopathologic diagnosis of their gastric biopsy specimens. GAVE was diagnosed histopathologically when the gastric mucosa contained dilated vessels with fibrin thrombi.

Results
GAVE was suspected clinically or endoscopically in 850 patients.

A histopathologic diagnosis of GAVE (using the criteria outlined earlier) was made in 142 (16.7%) of these patients (median age 68 years; 70% women).

In the remaining 708 patients (median age 65 years; 61% women) the most common diagnoses were: Reactive gastropathy (72%); chronic inactive gastritis (16%) and H. pylori gastritis (4.6%).

Patients with histologically documented GAVE were older (68 versus 65), significantly more likely to be male (p<.05), and presented more often with anemia than patients with no definite histopathologic features of GAVE (Table 1).

Study Highlights
• Amongst patients with suspected vasculopathy, a set of simple histopathologic criteria (dilated vessel with fibrin thrombi) discriminate two distinct populations:
  1. Older patients with a greater prevalence of anemia and histologically visible vascular dilatations and thrombi
  2. Younger patients presenting with the more conventional indications for EGD (GERD, pain, and dyspepsia) and no histopathologic evidence of antral vascular pathology, including thrombi.

• We suggest that the second set of patients do not, in fact, have GAVE, but its endoscopic features are mimicked by other conditions.

• As a corollary, we submit that diagnosis of GAVE should not be made on clinical or endoscopic grounds alone; rather, it ought to rest on solid histopathologic foundations.

References