

# Prevalence of Clinically Significant Endoscopic Findings in Dyspeptic Patients with Alarm Features

Pitiya Roongpoovapatr, M.D.<sup>1</sup>, Amporn Atsawarugruangkit, BS.Pharm.<sup>1</sup>, Disaya Chavalitdhamrong, M.D.<sup>2</sup>, Chalermrat Bunchorntavakul, M.D.<sup>1</sup>

Division of Gastroenterology and Hepatology, Department of Internal Medicine,

<sup>1</sup>Rajavithi Hospital, College of Medicine, Rangsit University, Bangkok, Thailand; <sup>2</sup>University of Florida, Gainesville, FL, USA

## Background and Aims

Dyspepsia is common in clinical practice. Esophagogastroduodenoscopy (EGD) is generally recommended in dyspeptic patients with alarm features (AF) including (I) age ≥ 55 years, (II) evidence of gastrointestinal blood loss, (III) unexplained weight loss, (IV) dysphagia, and (V) persistent vomiting. The predictive value of AF remains uncertain.

The aim of this study was to evaluate EGD findings in dyspeptic patients with AF and to assess the diagnostic role of abdominal ultrasonography (US) in endoscopy-negative dyspeptic patients with AF.

## Patients and Methods

Between March 2012 and January 2013, consecutive dyspeptic patients were screened for the presence of AF. EGD was performed in dyspeptic patients with AF. Significant EGD findings were defined as any lesion(s) other than normal and non-erosive gastritis. Patients with known intraabdominal malignancy, previous gastric surgery and EGD were excluded. EGD findings among dyspeptic patients without AF who underwent EGD during the same period of time was retrospectively collected to compare with the study population. Abdominal US was performed in all endoscopic negative patients.

## Results

Total of 925 patients were screened at the outpatient Internal Medicine and GI Clinics; 227 patients met the inclusion and exclusion criteria, and then were enrolled into the study. There were 85 men (37.4%) and 142 women (62.6%), with a mean age of 58.55 ± 13.78 years; median age 61 years (range 21-87 years). 30% of patients were < 55 years old and 70% of patients were ≥ 55 years old of age. Mean duration of dyspeptic symptoms was 31.14 ± 1.27 weeks, with a median duration 8 weeks (range 1 day-30 years).

Each alarm features (I) age ≥ 55 years, (II) evidence of gastrointestinal blood loss, (III) unexplained weight loss, (IV) dysphagia, and (V) persistent vomiting were noted in 70% (159/227), 33.9% (77/227), 46.3% (105/227), 4% (9/227), and 4.4% (10/227) of patients, respectively.

Clinically significant findings were found in 69.2% (157/227) of patients. Whereas, negative findings were observed in 30.8% (70/227) of patients; 67 non-erosive gastritis (29.5%) and 3 normal EGD (1.3%).

Table 1) Diagnosis in dyspeptic patients with alarm features

Diagnosis	N(%)
CA esophagus	1 (0.4%)
Erosive gastritis	78 (34.4%)
Erosive gastroduodenitis	20 (8.8%)
Erosive duodenitis	2 (0.9%)
Gastric ulcer	30 (13.2%)
Duodenal ulcer	9 (4%)
Peptic stricture	3 (1.3%)
PHG	1 (0.4%)
Gastric tumors	13 (5.7%)
- Adenocarcinoma	8 (3.5%)
- Lymphoma	2 (0.9%)
- GIST	2 (0.9%)
- Metastatic squamous cell carcinoma	1 (0.4%)
Non-erosive gastritis	67 (29.5%)
Normal	3 (1.3%)

Table 2) Alarm features and diagnosis

Diagnosis	1 AF					2 AF			3 AF
	A (N=159)	B (N=77)	C (N=105)	D (N=9)	E (N=10)	A+B (N=42)	A+C (N=63)	B+C (N=32)	A+B+C (N=21)
Tumor	4.4%	11.7%	6.7%	11.1%	20%	9.5%	6.4%	12.5%	9.6%
Peptic ulcer disease	18.9%	39%	14.3%	11.1%	60%	42.9%	19.1%	34.3%	38.1%
Erosive gastro duodenitis	43.4%	36.4%	48.6%	55.5%	20%	33.4%	46%	37.4%	33.3%
PHG	0.6%	1.3%	0%	0%	0%	2.4%	0%	0%	0%
Normal / Non-erosive gastritis	32.7%	11.7%	30.5%	22.2%	0%	11.9%	28.6%	15.6%	19%

AF = alarm features; A=age ≥ 55; B=GI blood loss; C=weight loss; D=dysphagia; E=vomiting

Among 5 alarm features, persistent vomiting seems to have the highest predictive value, as significant EGD findings were detected in 100% of patients [Table 2].

Table 3) Baseline characteristics and EGD findings between alarm feature positive and negative groups

	AF +	AF -	p value
Sex (male)	85/227 (37.4%)	29/80 (36.3%)	0.894
Mean age	58.5 ± 13.8	42.1 ± 8.4	<0.001
Significant EGD findings	157/227 (69.2%)	17/80 (21.3%)	<0.001

The prevalence of clinically significant EGD findings in dyspeptic patients with AF was significantly higher than the AF-negative dyspeptic cohort in our center (69.2% versus 21.3%, respectively; p<0.001) [Table 3].

Table 4) Predictor of clinically significant endoscopic findings

Predictor	Positive EGD findings (N=157)	Negative EGD findings (N=70)	p value
Sex (male)	45.2%	20%	<0.001*
Mean of symptom duration (weeks)	23.6 ± 75.0	48.0 ± 199.3	0.182
Mean age	58.4 ± 14.3	58.8 ± 12.6	0.862
Age ≥ 55 years	68.2%	74.3%	0.433
GI blood loss	43.3%	12.9%	<0.001*
Weight loss	46.5%	45.7%	1.000
Weight loss ≥ 5%	60.3%	75%	0.185
Dysphagia	4.5%	2.9%	0.725
Vomiting	6.4%	0%	0.034*
Age ≥ 55 with GI blood loss	23.6%	7.1%	0.008*
Age ≥ 55 with weight loss	28.7%	25.7%	0.131
GI blood loss with weight loss	17.2%	7.1%	0.004*
Age ≥ 55 with GI blood loss with weight loss	10.8%	5.7%	0.057
H.pylori infection	61.8%	33.3%	<0.001*

\* Statistical significant

Male, GI blood loss, vomiting, Age ≥ 55 with GI blood loss, GI blood loss with weight loss and H.pylori infection were associated with positive EGD findings [Table 4].

Patients with age ≥ 55 years or weight loss without others alarm features found more numbers of negative EGD (45.9% and 43.3% respectively) [Table 5].

Table 5) Diagnosis in dyspeptic patients with age ≥ 55 without others alarm features and weight loss without others alarm features

Diagnosis	Age ≥ 55 (N=72)	Weight loss (N=30)
Gastric adenocarcinoma	1.4%	3.3%
Peptic ulcer disease	11.1%	0%
Erosive gastroduodenitis	41.7%	53.4%
Normal/Non-erosive gastritis	45.9%	43.3%

Table 6) Upper abdominal ultrasonographic findings in endoscopy negative patients

Ultrasonographic findings	N(%)
Negative	33 (47.1%)
Gallstone	13 (18.6%)
Fatty liver	14 (20%)
Cholangiocarcinoma	1 (1.4%)
Hemangioma	1 (1.4%)
Intraabdominal LN enlargement	1 (1.4%)
Intrahepatic duct dilatation	1 (1.4%)
Loss follow up	6 (8.6%)

## Conclusion

The presence of AF in dyspeptic patient has high predictive value for clinically significant EGD findings and the most common lesion was erosive gastroduodenitis. The usefulness of US in EGD-negative dyspeptic patients with AF remains unclear.

เสนอโดยนายเฉลิมรัฐ บัญชรเทวกุล นายแพทย์ชำนาญการ โรงพยาบาลราชวิถี

ในการประชุม DDW 2013 Digestive Disease Week ซึ่งจัดขึ้นระหว่างวันที่ ๑๘ - ๒๒ พฤษภาคม ๒๕๕๖ ณ สหรัฐอเมริกา