

# A Dominant Alarm Symptom in Elderly Patient with Gastroduodenitis Erosive NSAID

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## ABSTRACT

*Alarm symptoms for dyspepsia, such as anemia, evidence of gastrointestinal bleeding, weight loss, dysphagia, odynophagia and new onset at age  $\geq 50$  years are associated with an increase risk of cancer. Most guidelines for the management of dyspepsia emphasize that patients with alarm symptoms should undergo aggressive evaluation including endoscopy.*

*We reported a case of 65 years old female with several alarm symptoms that suggesting of malignancy, but endoscopy finding revealed gastroduodenitis erosive NSAID due to the pain killer herbal medicine use.*

**Keywords:** *melena, alarm symptoms, cancer, gastroduodenitis, NSAID*

## INTRODUCTION

Most guidelines for the management of dyspepsia emphasize that patients with alarm symptoms (e.g. anemia, dark stools, bloody stools, hematemesis, dysphagia, odynophagia, jaundice, weight loss, new onset at age  $\geq 50$  years) should undergo endoscopic evaluation. These alarm symptoms are associated with an increased risk of cancer.

Nonsteroidal anti-inflammatory drugs (NSAIDs) are a major cause of gastrointestinal (GI) morbidity and mortality. Gastrointestinal side effects of NSAID include dyspepsia, peptic ulceration, hemorrhage and perforation.

## CASE REPORT

A Javanese female patient, 65 years old was admitted to hospital with chief complaint recurrent dark stool since a month before. She also frequently felt epigastric pain accompanied with abdominal discomfort since two years ago worsening in the last three days. Weight loss was noticed. Since eleven years ago she frequently suffered from knee pain during activity which was getting better by rest. In order to relieve the pain she took pain killer herbal medicine. A year ago she consulted an internist who injected medicine into both her knees. She felt free of pain for several months, but in the last three month the pain was recurred again so that she started consuming pain killer herbal medicine.

Physical examination revealed that she looked weak, fully alert, weight 50 kg, height 160 cm, BMI 19.5 kg/m<sup>2</sup> (normoweight), anemic, epigastric tenderness and knee crepitation. Laboratory finding revealed Hb 8.8 g/dl, MCV 72  $\mu$ m<sup>3</sup>, MCH 21.5 pg, MCHC 29.7 g/dl, leukocyte 5,500/ul, PCV 29.1%, thrombocyte 270,000/ul, random blood glucose 92 mg/dl, urea 18 mg/dl, creatinine 0.66 mg/dl, uric acid 2.6 mg/dl, ESR 27 mm/h. Endoscopy showed erosive and fundal edema, corpus and angulus gaster and duodenum, with conclusion of gastroduodenitis. Knee X-ray revealed osteophytes on both lateral condyles and intercondyles eminentia concluded as bilateral knee osteoarthritis.

The patient was diagnosed occult bleeding caused by erosive gastroduodenitis NSAID and osteoarthritis

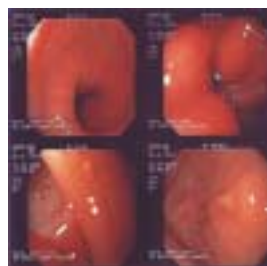


Figure 1. Endoscopy showed erosive and fundal edema, corpus angulus gaster

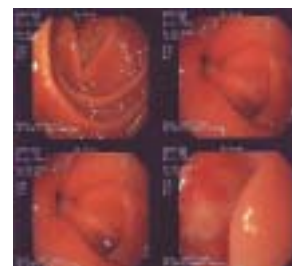


Figure 2. Endoscopy showed erosive and fundal edema, corpus, angulus gaster and duodenum

of knee joint. She was suggested to stop taking all pain killer herbal medicine she used before. We was explained to her that her stomach disorder was closely related with the herbal medicine she used to take. She was given PRC transfusion in order to increase the Hb level, omeprazole 20 mg per day and sucralfat 15 ml three times daily. She was discharged against medical advice. She had plan to undergo further treatment by a rheumatologist in a private practice.

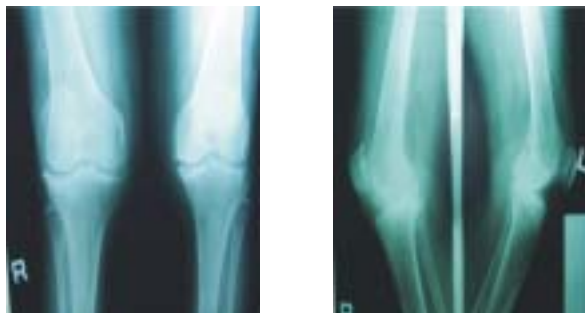


Figure 3. Knee X-ray revealed osteophytes on both lateral condyles and intercondyles eminencia

**Table 1. Comparison of clinical manifestation between gastric cancer and the patient**

Alarm symptom	Gastric Ca	Patient
Anemia	Anemia	Hb 8.8 g/l
Melena	Melena	Melena
Hematemesis	Hematemesis	-
Dysphagia	Dysphagia	-
Odynophagia	-	-
Weight loss	Weight loss	Weight loss New onset at 65 years
New onset at age $\geq$ 50 years <sup>1,2</sup>	Uncommon under age 40, The mean age: 63	
	Dyspepsia, epigastric pain	Epigastric p
	Early satiety	-
	Postprandial vomiting	-
	Gastric mass <sup>6</sup>	-

## DISCUSSION

Melena, anemia and elderly presented in this patient are alarm symptoms that make us considering the possibility of malignancy. The positive predictive values of any alarm symptom for cancer were 3 percent and for ulcer was 10 percent; negative predictive value were 99 and 97 percent, respectively. The risk of cancer during the follow-up period was increased in persons with dyspepsia and alarm symptoms as compared with the general population (odds ratio: 6.30). Current recommendations emphasize aggressive evaluation of this patients.<sup>1,2</sup> As part of aggressive evaluation, we perform an endoscopy.

Endoscopic finding didn't revealed any masses. The finding of erosive and edema in fundus, corpus and angulus gaster and duodenum which were thought to be a result of both systemic actions (involving

inhibition of mucosal prostaglandin synthesis) and local topical effects related with to NSAID that was contained in pain killer herbal medicine.<sup>3</sup>

Continuous ingestion of a nonaspirin NSAID usually causes acute intramucosal hemorrhages and erosions to develop in the stomach within a week, and a single dose of aspirin can cause the same level of injury. It is highly suggested that NSAIDs damage the gastric mucosa by suppressing the synthesis of gastric prostaglandins. Prostaglandins play a critical role in maintaining gastroduodenal mucosal integrity and repair. The interruption of prostaglandin synthesis can impair mucosal defense and repair, thus facilitating mucosal injury via systemic mechanism. Prostaglandins regulate several components of the mucosal defense system including mucus and bicarbonate secretion and mucosal blood flow. By inhibiting prostaglandin synthesis NSAIDs may interfere with some or all of these mucosal defense mechanisms, and cause the gastric mucosa to be susceptible to the damaging effects of luminal irritants.<sup>3,4,5</sup>

## CONCLUSION

Any patients with alarm symptoms for dyspepsia, such as anemia, evidence of gastrointestinal bleeding, jaundice, weight loss, and dysphagia are associated with an increased risk of cancer that need more aggressive evaluation, but we must think another possibility such as gastroduodenitis erosive NSAID especially in elderly patient who takes pain killer herbal medicine.

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