

Functional dyspepsia of ulcer-dysmotility type: clinical incidence and therapeutic strategy

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Functional dyspepsia is a commonly occurring chronic digestive disorder affecting 20%-40% of the general population^[1]. It is a syndromic term applied to patients who complain of symptoms presumably arising from the upper abdomen, often in response to meal ingestion, but with absence of organic abnormalities demonstrable by conventional diagnostic tests. Although functional dyspepsia is very common in the community, the classification and the clinical therapy are still uncertain. Therefore this study deals with the clinical incidence and the therapeutic strategy of functional dyspepsia of the ulcer-dysmotility mixed type.

MATERIALS AND METHODS

Diagnostic criteria^[2]

The patients who fulfilled the following criteria were selected: postcibal abdominal fullness or bloating with other associated symptoms, including early satiety, upper abdominal pain, nausea, and vomiting; symptoms of moderate to severe intensity, and of more than 3 months duration; absence of clinical, biochemical, and morphological evidence of gastrointestinal, biliary, and systemic diseases assessed by negative results of anamnesis, physical examination, laboratory tests, upper gut endoscopy and ultrasonography; and no previous abdominal surgery.

Classification

Functional dyspepsia is now conventionally divided into ulcer (those with symptoms suggestive of peptic ulceration), dysmotility (those with gastric stasis including upper abdominal bloating, abdominal fullness, early satiety, belching, nausea, and

vomiting), reflux (those with symptoms of gastroesophageal reflux), and unspecified dyspepsia (the remainder)^[1]. Because many of subjects with dyspepsia could be classified into more than one group, we classified the patients with overlapped symptoms of peptic ulceration and gastric stasis into ulcer dysmotility mixed type of functional dyspepsia.

Treatment

The patients with ulcer-dysmotility mixed type of functional dyspepsia were randomly divided into three groups: group 1 received famotidine (gaster, 40mg qd) for 3 weeks; group 2 received cisapride (prepulsid, 5mg tid) for 3 weeks; and group 3 treated with both famotidine and cisapride for 3 weeks. No additional medication was given. One month after termination of the treatment, the patients were followed up for symptoms disappearance and side-effects.

Statistics

Statistical analyses were made using χ^2 test.

RESULTS

A total of 220 patients with functional dyspepsia (122 males and 98 females; aged 19-62 years, averaging 36 years) were included in this study. All patients fulfilled the diagnostic criteria mentioned above. According to the symptoms, 59 cases (26.8%) were classified as ulcer type; 57 cases (25.9%), dysmotility type; 2 cases (0.9%) of reflux type; and 102 cases (46.4%), ulcer-dysmotility mixed type.

The ulcer-dysmotility mixed type (59 males and 43 females, aged 21-61 years, mean 39 years) were randomly allocated to three groups (34 patients each group) and treated with famotidine, cisapride, and famotidine plus cisapride respectively. One month after termination of the treatment, the symptom disappearance of the patients are shown in Table 1. Three patients withdrew from the treatment because of diarrhea caused by cisapride. The results demonstrated that a single drug (famotidine or cisapride) could not efficiently eliminate the symptoms of the patients, while the combined therapy with famotidine plus cisapride seem to be an effective treatment for those patients.

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Table 1 Symptom disappearance after treatment

Groups	n	Ulcer-line	Dysmotility-like	Both
		symptoms(%)	symptoms(%)	symptoms(%)
Famotidine	34	33 (97.1)	10 (29.4) ^a	10 (29.4) ^a
Cisapride	32	9 (28.1) ^a	30 (93.8)	9 (28.1) ^a
Famotidine plus cisapride	33	33 (100)	32 (97.0)	32 (97.0)

^a $P < 0.01$ vs famotidine plus cisapride group.

DISCUSSION

Like other functional disorders of the gastrointestinal system such as irritable bowel syndrome and gastro-oesophageal reflux, our understanding of the pathophysiological mechanisms underlying this condition still remains elusive. Motor, neurohumoral, and sensory abnormalities in both the stomach and small bowel have been demonstrated in some patients with functional dyspepsia^[3]. It has been proposed that the previous symptom classification in patients with functional dyspepsia may reflect, to a certain extent, different pathophysiological entities, but distinct symptom classification can not be accomplished. So the investigation and treatment of functional dyspepsia can be benefited by the symptom classification^[4]. Our study indicated that the ulcer and dysmotility (46.4%) type was overlapped in patients with functional dyspepsia, therefore we suggested the concept of ulcer-dysmotility mixed type which may be beneficial to the classification and treatment of

those patients.

In present study, a total of 102 patients with ulcer-dysmotility mixed type of functional dyspepsia were randomly divided into three groups and treated with famotidine, cisapride, and famotidine plus cisapride respectively. The results demonstrated that famotidine plus cisapride could more efficiently eliminate the symptoms of the patients as compared with the group using famotidine or cisapride alone. Although the previous study suggested that the peripheral kappa agonist fedotozine could modify both sensory and motor responses to stimuli and effectively relieve the key symptoms associated with functional dyspepsia including ulcer and dysmotility-like symptoms^[5], famotidine plus cisapride may be an effective and economic therapy for the ulcer-dysmotility mixed type of functional dyspepsia based on the modified symptom related classification.

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