

JEJUNAL DIVERTICULOSIS

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Abstract: Although often incidentally found in the radiological examination of the small intestine, some patients with diverticula suffer from complications, that may lead to surgical intervention. Contrast study of the small intestine by enteroclysis is the method of choice to determine jejunal diverticula.

We report a case of symptomatic proximal jejunal diverticulosis in a 74 year old patient who presented with diffuse abdominal pain.

The clinical significance, diagnostic evaluation and treatment of jejunal diverticulosis are reviewed.

Key words: jejunal diverticulosis, enteroclysis

INTRODUCTION

Jejunal diverticula are rare with an incidence of 2.3% in enteroclysis with prevalent affection of males [7]. Pathogenetically, jejunal diverticula are pseudodiverticula of the pulsion type, resulting from increased intraluminal pressure and weakening of the bowel wall [6]. They only contain mucosa and submucosa (Fig 1).

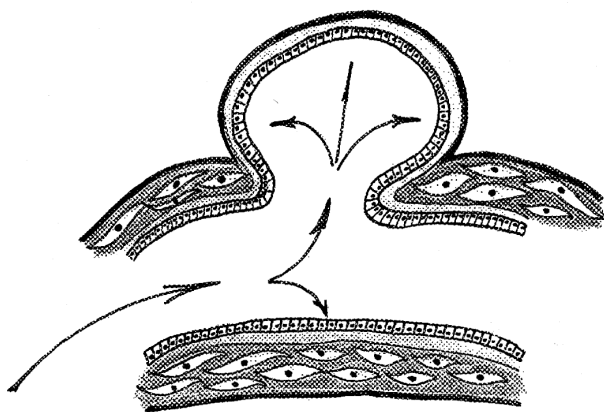


Fig. 1. Pathogenesis of the formation of jejunal diverticulum.

The majority of the patients is asymptomatic or has unspecific symptoms such as abdominal pain. Diverticula are often incidental findings in enteroclysis of the small bowel. Few patients have acute complications, that may lead to surgical intervention. We report a case of proximal jejunal diverticulosis in a patient with recurrent episodes of diffuse abdominal pain.

CASE REPORT

A 74 year old man with recurrent epigastric, periumbilical pain and flatulence was admitted to the department of gastroenterology. He presented with mild diffuse abdominal discomfort on palpation. Laboratory test were within normal limits.

Abdominal sonography and abdominal roentgenogram revealed no pathological findings. Enteroclysis demonstrated a local diverticulosis of the proximal jejunum (Fig.2). Because of the relatively mild symptoms and lack of severe complications only symptomatic therapy was started. The patient was treated for 8 days with oral antibiotic and discharged after 2 weeks of observation.

DISCUSSION

Historical aspects: Unfortunately, there is still some uncertainty about the first description. The diverticulosis of the small bowel appears to have been first reported by Sommering and Baillie 1794 as a result of their autopsy studies [15]. However, most public refer to the book of Sir A. Cooper published first in 1807 "The anatomy and surgical treatment of crural and umbilical hernia" [5]. Sommering and Baillie made their description in German, this fact may be the cause for this misunderstanding. 1881 W. Osler published the first clinical observation on this subject, and 1920 J. T. Case first described the jejunal diverticulum in the radiological examination [3, 10].

Incidence: There is a difference concerning the incidence between radiological and autoptical cases, and discrepancies in the data of different authors in dependence of the method of radiological examination (Table 1). The incidence of the disease is ranging from 0.5% [12] to 2.3% [6]. Enteroclysis shows the diverticula better than a conventional small bowel examination.

In specific autopsies with filling of the small bowel with water under moderate pressure the number of diverticula found is higher than in the conventional small bowel examination (Table 2).

Clinical symptoms: About 80% of the jejunal diverticula are asymptomatic [1, 6]. Though, the jejunal diverticula may cause symptoms if complications occur [16]. Only few studies exist, that examined a large number of patients (Table 3).

Acute complications include massive hemorrhage, diverticulitis with or without perforations, and intestinal obstruction [1]. Chronic complications include ab-



Fig. 2. Jejunal diverticula in enteroclysis.

Table 1. Prevalence of jejunal diverticula radiographically.

| Prevalence, % | Patients | References, year | radiography |
|---------------|----------|-------------------------------|---|
| 0.5 | 4786 | Ritvo M., Votta P., 1946 [12] | Conventional small bowel examination |
| 1.1 | 358 | Mickley V., 1989 [8] | Conventional small bowel examination and laparotomy |
| 2.3 | 519 | Maglente et al., 1986 [7] | enteroclysis |

Table 2. Prevalence of jejunal diverticula in autopsy.

| Prevalence, % | Autopsy | References, year |
|---------------|------------------|-------------------------------------|
| 0.26 | 19 000 Autopsien | Altemeier et al., 1963 [1] |
| 1.33 | 300 Autopsien | Rosedale R., Lawrence H., 1936 [13] |
| 4.6 | 218 Autopsien | Noer T., 1960 [9] |

Table 3. Symptomatic/asymptomatic diverticula.

| | Baskin et al, 1952 [2] | Altemeier et al., 1963 [1] | Wilcox et al., 1988 [17] | Palder et al., 1988 [11] |
|-----------------------|------------------------|----------------------------|--------------------------|--------------------------|
| Patients | 87 | 62 | 86 | 47 |
| Symptomatic: | 53 (60.9) | 46 (74.2) | 61 (70.9) | 14 (29.8) |
| Akute complications | 9 (10.3) | 9 (14.5) | 8 (9.3) | 8 (17.0) |
| Chronic complications | 25 (28.7) | 7 (11.3) | 17 (19.7) | 25 (53.1) |
| Asymptomatic: | 34 (39.1) | 16 (25.8) | 25 (29.1) | 33 (70.2) |

dominal pain, dyskinesia, chronic hemorrhage and malabsorption [4, 11]. Symptomatic cases often present with unspecific discomfort. That fact makes the clinical diagnosis difficult, as it was in the presented clinical case.

Jejunal diverticulosis is a potential source of extensive bleedings. Diverticulitis with perforation and mechanic obstruction need surgical intervention. Segmental resection of the small bowel is the preferred method in these cases. Chronic complications such as malabsorption and bowel dyskinesia caused by secondary bacterial overgrowth can be treated by antibiotics and vitamin B 12 substitution. Asymptomatic diverticula need no treatment. But if some abdominal symptoms occur in patients with known diverticula, complications of jejunal diverticular disease should be considered.

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