Spontaneous passage of a colon cast in the absence of abdominal aneurysm

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Abstract: The spontaneous passage of colon cast from a 76-year-old Japanese female patient is reported. Macroscopically, the colon cast was shaped like the airbladder of a fish. Histopathologically, the cast consisted of degenerated colonal mucosa, including glands. No inflammatory reaction was apparent. The patient lacked any evidence of abdominal aneurysm. Since there have been only five reported cases of colon cast in the literature, and since in all of those association with abdominal aneurysms was always described, the present study represents the first report demonstrating the formation of a colon cast in the absence of associated abdominal aneurysm. However, the patient was found to exhibit several risk factors for ischemic colitis, such as arteriosclerosis on the wall of the abdominal aorta, chronic constipation, and colonic stenosis. Her colonal mucosal surface, indeed, suggested ischemic colitis. This case report, therefore, indicates that ischemic colitis, due to various causes, may be responsible for the formation of colon casts, and that the presence of an abdominal aneurysm is not necessarily a prerequisite for colon cast formation. This report may contribute to a better understanding of the pathogenesis of colon casts.

Key Words: colon cast, abdominal aneurysm, ischemic colitis

Introduction

Colon cast is a relatively rare disease which is thought to be the consequence of a dropout of the colonic mucosa, as found in specific cases of ischemic colitis.

Case report

The patient was a 76-year-old Japanese female with no particular episodes in her family history. She had experienced a gastric ulcer at age 56 and had suffered from constipation since August, 1989, the latter condition leading her to use laxatives continuously. On the 9th of September, 1991, she suddenly experienced melena (fresh blood). Because of subsequent continuing diarrhea with lower abdominal pain, she visited one of our institutions (Sakurai Hospital) as an outpatient, on the 11th of September, 1991. On the same day, she found a strange body, shaped like the airbladder of a fish discharged in her second melena; she was immediately hospitalized. She was relatively small but was well nourished. No particular symptoms were found in her head, neck, or chest. Her abdomen was soft and flat. Physically, there was slight tenderness in the lower abdomen. There were no signs suggesting the presence of any particular diseases such as ileus. With the exception of a high C-reactive protein value of 0.063 mg/ml serum, neither biochemical nor biophysical abnormalities were detected. On the 12th of September, 1991, a colonoscopic examination was performed; revealing the presence of another body,
also shaped like the airbladder of a fish, in the sigmoid portion of her colon, 400 mm proximal to the anal ring (Fig. 1). This body was promptly removed colonoscopically. The removed body was enveloped by colonic mucosa. Colonoscopically, there were edema and erosions on the surrounding colonic mucosal surface, an appearance compatible with ischemic colitis (Fig. 2). A barium enema, given 20 days after admission, showed stenosis between 350 and 200 mm proximal to the anal ring (Fig. 3). Based on the barium enema findings, a second colonoscopy was performed; this showed stenosis, an erosion, and a shallow ulcer 200 mm proximal to the anal ring. The surrounding colonic mucosa was edematous. Histopathological examination of the biopsy specimens showed an ulcer and its recovery. An abdominal computed tomography (CT) scan revealed arteriosclerosis, but no aneurysm, on the wall of the abdominal aorta. The patient was treated conservatively and was allowed to leave the hospital 6 weeks after admission. There has been no recurrence of the colon cast since then.

**Pathological findings**

The macroscopic appearance of the colonoscopically removed material is shown in Fig. 4. It was shaped like the airbladder of a fish. The surface was smooth and wet; it was light brownish-red in the central portion and dark-brownish peripherally. The length of the material was approximately 300 mm; its maximum width was 50 mm. A cross section demonstrated a mesh-like structure light brownish-red in color. The material contained a light yellowish semitransparent fluid resembling serum.