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Cecal Diverticulitis in the Japanese

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Four cases of diverticular disease of the colon are reported. The disease is rare in Japan and is more commonly seen in the cecum. Differential diagnosis of right lower quadrant pain and a filling defect in the cecum on x-ray examination is evidence of diverticular disease of the cecum. The future trend of the disease of the colon is predicted as increasing because of older populations, changes in diet and more frequent recognition through barium enema examination.

Although diverticular disease of the colon is said to be rare in Japan, we saw four cases in the five years 1965-70 in the First Department of Surgery, Nihon University Hospital, Tokyo. A search of the department’s files failed to reveal any earlier cases.

Kodeki et al collected 94 cases of diverticular disease of the colon from various institutions in Japan. They gave the incidence as follows: 26.0% for the cecum, 20.8% for the ascending colon, 16.3% for the transverse colon, 13.3% for the descending colon and 23.6% for the sigmoid colon. Makino et al and Yamagata et al reported that the disease is more common in the right side of the colon. Of the 108 patients treated for right colon diverticulitis by Peck in Hawaii two thirds were Japanese.*

Of 94 cases collected in the series by Kodeki et al, 62 cases were diagnosed to have diverticulitis with the cecum most involved (32.3%) and the sigmoid next (27.3%). Surgical intervention was necessary in 54 cases of diverticulitis. The pre-operative diagnosis was correct in only 11 cases. The most commonly given pre-operative diagnosis was acute appendicitis (44.4%) and carcinoma of the colon was next (14.4%).

From these observations, it can be said that diverticular disease of the colon is rare in Japan. Although the number of cases is too small to draw conclusions, the cecum is most commonly involved.

Report of Four Cases

Case 1.—A 43-year-old man was admitted to the hospital because of “loose stool”, developed approximately eight months prior to the admission and unimproved by medication. He
had no abdominal pain, diarrhea, constipation, peranal bleeding or loss of appetite, but had lost about 5 Kg of weight. He had had a hemorrhoidectomy earlier. Family history was non-contributory. Examination of the abdomen revealed a palpable mass in the right lower quadrant. Studies of the lower gastrointestinal tract showed a filling defect in the cecum (Fig 1).

The diagnosis of carcinoma of the colon was entertained and he underwent a celiotomy. At the time of surgery, two masses, each about 2.5 cm in diameter, were found in the cecum close to the root of the appendix, which was normal. Because the malignancy could not be excluded, a right hemicolectomy was done. His post-operative course was uneventful. The pathological diagnosis was diverticulitis of the cecum.

Comment: The preoperative diagnosis was carcinoma of the cecum. Even at the time of surgery, a malignancy could not be excluded.

Case 2.—A 59-year-old man was admitted to the hospital because of acute pain in right lower quadrant which had followed pain in the epigastrium three days prior to the admission. He reported no nausea or vomiting. Tenderness was elicited in the right
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lower quadrant of the abdomen. Body temperature was 36.6°C and the leucocyte count, 12,200.

With the diagnosis of acute appendicitis, a laparotomy was performed which showed that the appendix was normal. Examination of the cecum revealed a hyperemic and edematous serosal aspect and an inflammatory mass approximately 5 cm in diameter. Diverticulitis was considered but carcinoma could not be excluded, so a right hemicolectomy was performed. The patient had an uneventful postoperative course. The pathological examination showed acute diverticulitis.

Comment: Acute appendicitis was the preoperative diagnosis and the indication for operation was correct.

Case 3.—A 61-year-old woman was admitted to the hospital complaining of diarrhea and “fullness” of the abdomen. Three years prior to the admission, investigations of her stomach showed no abnormalities. Barium enema examination was not done at that time. When she developed the diarrhea and fullness of the abdomen, about three months prior to the admission, barium enema produced a diagnosis of intestinal polyposis.

At the time of admission, examina-
tion of the abdomen was not remark-
able. Barium enema showed diverticu-
losis of the descending and sigmoid
colon (Fig 2). There were a few scat-
tered diverticula in the ascending and
transverse colons (Fig 3).

She underwent left hemicolectomy. Her post-operative course was com-
plicated by urinary tract infection and
anastomotic leak. She responded well
to conservative therapy and was dis-
misse on the 45th post-operative day.

Comment: If a barium enema exam-
ination had been done three years ago she would probably have been found
to have diverticulosis of the colon. The admission diagnosis of intestinal poly-

Case 4.—A 40-year-old man was
admitted to the hospital because of
intermittent pain, which first appeared
in the right side of the abdomen 19
months prior to the admission. Sub-
sequently the pain increased in fre-
quency and he noticed peranal bleed-
ing. He underwent upper and lower
gastrointestinal studies which showed
“an abnormality of the colon” and the
examining physician referred him to
our hospital. He had had an appen-
dectomy previously. This “abnormality
of the colon” was found to be diverticulosis of the right colon (Fig 4). He underwent right hemicolectomy and his post-operative course was without complications. The pathological diagnosis was diverticulosis of the colon.

Comment: Please note that he was said to have “an abnormality of the colon” by a local physician.

Discussion
During this period from 1965-70 when the four cases reported were discovered, all but one of the 149 patients admitted to the department because of ailments of the colon and rectum had involvement of the right colon. The only exception was Case No. 3.

The higher rate of surgical intervention can be explained by the pre-operative diagnosis of acute appendicitis since most of the cases involved the cecum. “Left sided appendicitis” due to diverticulitis is common in the United States while “right sided appendicitis” due to diverticulitis is more common in Japan.

Left-sided diverticular disease is seen more among older people, and Japan is now experiencing an increased number of older people in the population. Another increasingly important factor is the change in Japanese dietary habits to resemble more closely those
of Europe and the United States. So, increased attention must be paid to the disease, with more frequent performances of barium enema study. In the past, barium enema study was uncommonly performed as a routine preoperative examination in Japan. It is well known that diverticula are found incidentally on such an examination.

It is presumed that many cases of diverticular disease of the colon, with vague abdominal symptoms, were left undiagnosed because of less attention to the disease and infrequent x-ray examinations of the colon. As mentioned previously, no cases were found in our files before 1965. Poor understanding of the disease is probably another contributing factor as seen in Cases 3 and 4.

From these facts, the frequency of diverticular disease of the colon, especially left sided, will probably increase in future, and the statistics of the disease in Japan will need to be revised. More cases of diverticular disease of the left colon were reported in recent years.5,6

REFERENCES