

Gallium-67 scintigraphy in an adult intussusception caused by malignant lymphoma

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A rare case of adult intussusception caused by malignant lymphoma (ML) of the cecum was reported. In spite of the cecum lesion, strong ^{67}Ga accumulation was located in the right epigastrium. This finding was useful in suggesting the presence of intussusception due to ML.

Key words: Malignant lymphoma, Cecum, Intussusception, Gallium-67, Adult

INTRODUCTION

Intussusception is rarer in adults than in children.¹ We experienced the gallium-67 (^{67}Ga) scintigraphy on a patient with intussusception caused by malignant lymphoma (ML) of the cecum. Since this finding of the location of ^{67}Ga accumulation was thought to be rare and also useful in suggesting the presence of intussusception, we presented the case.

CASE REPORT

A 39-year-old male was referred to our hospital because of persistent abdominal pain. Barium enema examination revealed a large tumor in the cecum (Fig. 1). Endoscopic examination also showed a Borrmann type 1 like tumor (Fig. 2). Biopsy was performed, but only necrotic tissue was obtained. ML was included in the differential diagnosis, and therefore ^{67}Ga scintigraphy was performed. In spite of the cecum lesion, ^{67}Ga accumulation was recognized only in the right epigastrium (Fig. 3). CT performed four days after ^{67}Ga scintigraphy showed a large target like mass, which indicated the presence of intussusception (Fig. 4). The patient complained of no aggravation of the symptoms during these

examinations. Except for this lesion, no abnormality was detected. An operation was performed and revealed a tumor of the cecum and ileocolic intussusception. Histopathology showed that the tumor was ML (B cell, diffuse large cell type) (Fig. 5), and no inflammation or necrosis caused by intussusception was evident.



Fig. 1 Barium enema examination revealed a large tumor in the cecum.

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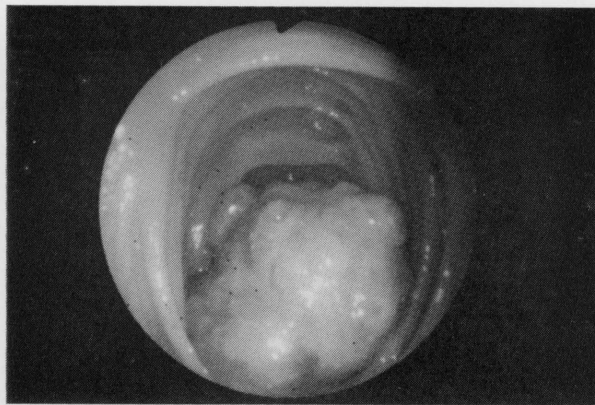


Fig. 2 Endoscopic examination showed a Borrmann type 1 like tumor.

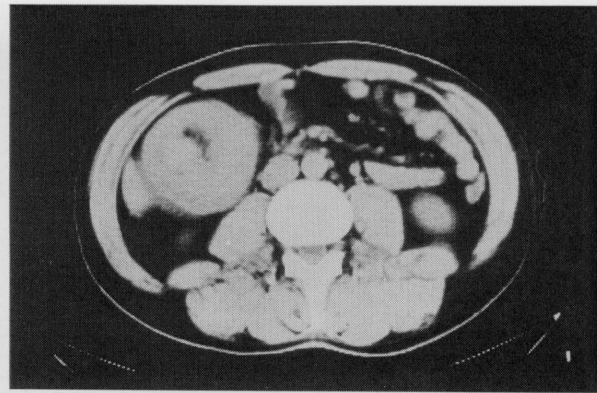


Fig. 4 CT showed a large targetlike mass suggesting the presence of intussusception.

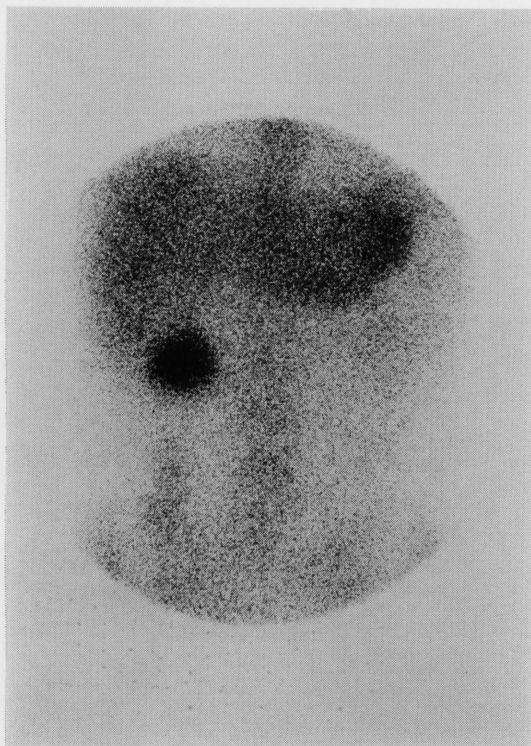


Fig. 3 ^{67}Ga uptake was recognized in the right epigastrium in spite of cecum lesion.

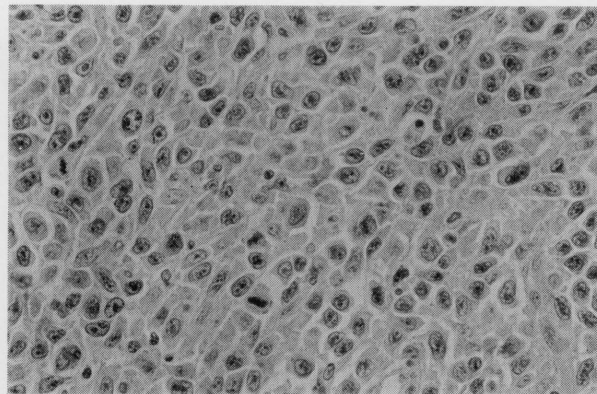


Fig. 5 Histology revealed malignant lymphoma of the colon (B cell, diffuse large cell type).

DISCUSSION

In adults, intussusception is rare, accounting for only 0.1% of all adult hospital admissions and 5–16% of all intussusceptions.¹ Unlike in children, the diagnosis of adult intussusception is often difficult due to its usually chronic history. Ultrasonography and CT can identify intussusception by its characteristic target-like appearance.^{2,3} Adult intussusception has a demonstrable cause in over 90% of cases in contrast to child intussusception, which is idiopathic in 90% of cases.¹ In a review of 1,214 reported adult intussusception cases, 45% (546 cases) involved

the colon and 55% the small intestine. Of the colon intussusceptions, 48% resulted from malignant tumors and 21% from benign lesions, and the most common responsible benign tumor is a lipoma of the ileocecal valve.^{4–6}

Primary ML of the colon and appendix is rare, but ML is the most common sarcoma of the colon, and the cecum is the site of the lesion in 85% of cases.⁷ The usefulness of ^{67}Ga scintigraphy in the evaluation of ML is well known, but ^{67}Ga accumulation in colon carcinoma is also reported.⁸ In the present case, the findings of Ba enema, CT and strong ^{67}Ga accumulation and its location suggested the intussusception caused by ML of the cecum. The symptom of the patient was thought to be due to intussusception. However barium enema and endoscopic examination failed to show the presence of intussusception. The reason was thought to be that reduction of the intussusception was performed by retrograde air infusion during the examination procedure. ^{67}Ga scintigraphy and CT showed the nature of the disease.

In conclusion, a rare case of adult intussusception caused by ML of the cecum was reported. CT and ^{67}Ga scintigraphy were useful in diagnosis.

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