

: CT 1

CT

173 CT 221  
 29 (30%) 가 23 , 가 6 ,

35 67 54 ,

CT 1-2

CT 30 (14%)  
 가 13 (43%) 17 (57%)

17 12 (40%), 가 5  
 (17%)

4.9mg/dl, 가 20 (67%) 2.6g/dl,  
 191 3.0g/dl, CT 4.1mg/dl, 가

43 (23%) (p>0.05).

: CT

(1)

(2),  
(3).

1996 1 1998 5  
173 221 CT

(4-6).  
( CT )

1 29 (30%)  
 , 가 23 , 가 6 , 35 67  
 54 CT HITACHI CT-  
 W2000 (Hitachi Medical Co. Tokyo, Japan) , 15ml  
 (Iopamiro , Bracco, Italy) 3ml

10mm, CT 10mm . 191 43 (23%) 132 (69%) 가 (p>0.05), 1(67%) 11(23%)

30 30 1-2

191 CT 1-2

test p 0.05 t- 가 가 가

173 221 CT (7-9), (portal hypertensive intestinal vasculopathy) (portal hypertensive colopathy) (3,10,11).

30 (14%) (Fig. 1)가 13 17 (57%)

(43%), 17 (Fig. 2) 12 (40%), (Fig. 3)가 5 (17%)

29 6 2 CT (interstitial oncotic pressure), (competence of lymphatic drainage) (vascular hydrostatic pressure) 가, (colloid oncotic pressure) (4-6).

CT가 3 2 CT , 1

CT , 1

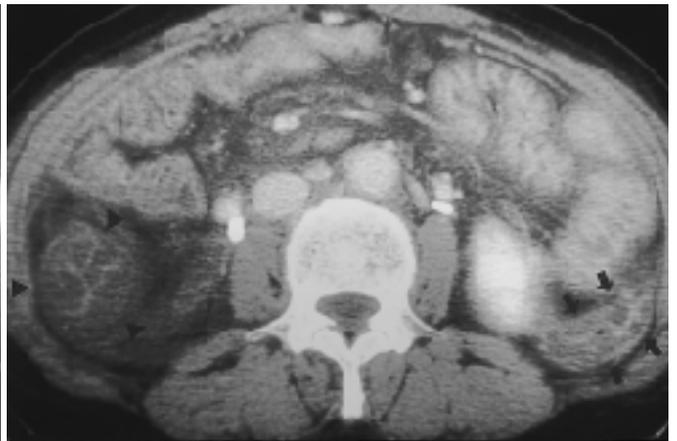
( 1) 2.6g/dl 가 2.0g/dl (3).

30 27 (90%) 30 27 (90%)

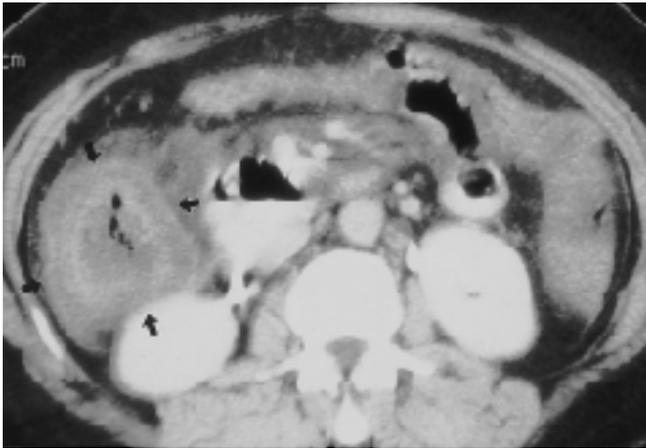
가 4.9mg/dl 20 (67%) 26 (87%) 3.0g/dl 가 2.0g/dl

( ) 2.9g/dl 1 가 3 (10%)가

145 (76%) 4.1mg/dl



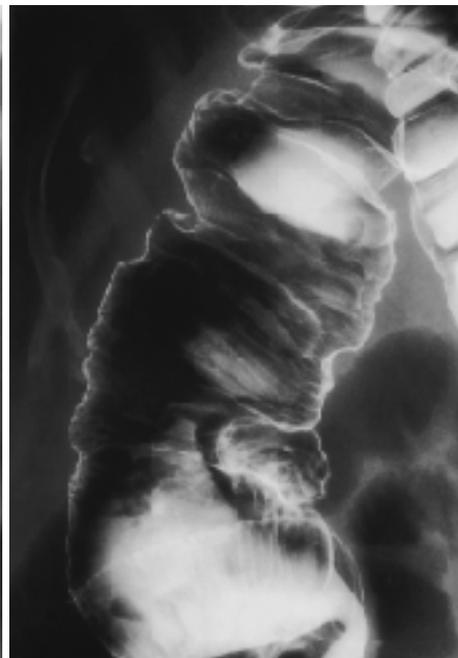
A B  
 Fig. 1. 55-year-old man, diffuse colonic edema. Abdominal CT with enhancement film shows nonenhancing wall thickening in ascending(B, arrow heads), transverse(A, arrows) and descending colon(B, arrows).



A



B



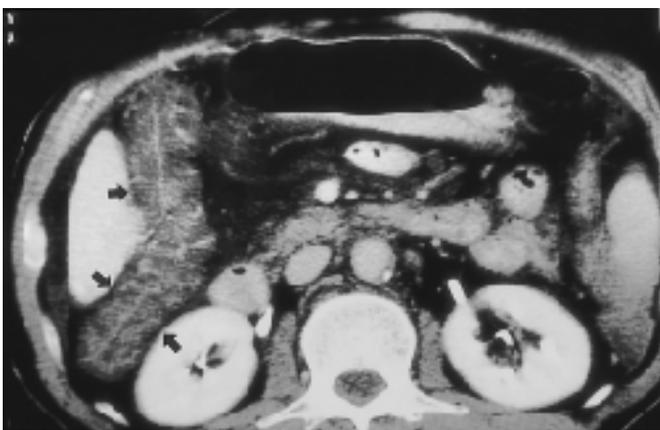
C

Fig. 2. 53-year-old woman, regional colonic edema.

A. Abdominal CT with enhancement film shows extensive nonenhancing wall thickening in cecum and ascending colon with regional fat infiltration(arrows), mimicking mass lesion.

B. Barium enema film shows typical multiple thumb-printing filling defects(arrows) in cecum and ascending colon.

C. Follow up barium enema after 1 week shows almost subsided filling defects and relatively well expanded cecum and ascending colon.



A



B

Fig. 3. 56-year-old man, regional colonic edema.

Abdominal CT with enhancement film shows non-enhancing wall thickening in ascending(A, arrows) and transverse colon(B, arrows).

가 (multiple thumb 가 가 printing filling defects) CT (Fig. 2B,C).

가 가 , 가 412 Rabinovitz (7) , 221 30 (13.6%) Rabinovitz 가 19.9% Balthazar (3) 가 9 , S 가 6 , 가 7 22 32 (100%), 18 (56%) 가 14 (44%) 가 가

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CT

## CT Findings of Non-specific Colonic Edema in Liver Cirrhosis<sup>1</sup>

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**Purpose :** To evaluate the CT findings and clinical significance of colonic edema in liver cirrhosis.

**Materials and Methods :** We retrospectively reviewed the CT scans of 221 cases of clinically diagnosed liver cirrhosis in 173 patients. In 30 of these [23 men and six women aged between 35 and 67 (mean, 54) years], colonic edema was present. We evaluated its distribution (ascending, transverse or descending colon), analysed serum albumin and bilirubin levels, and in both the colonic edema and non-colonic edema group, determined whether ascites was present. Thus, we sought correlation between the presence of colonic edema, the severity of liver cirrhosis, and each parameter.

**Results :** CT revealed colonic edema in 30 of 221 cases (14 %). Of the 30, 13 cases (43 %) were diffuse colonic edema and 17 (57 %) were regional edema. Among these 17 cases, 12 (71 %) were seen only in the ascending colon, while five (29 %) were seen in both the ascending and transverse colon. In the group with colonic edema, the mean level of serum albumin was 2.6 g/dl, and that of serum bilirubin was 4.9 mg/dl; 20 patients (67 %) had ascites. In the group without colonic edema, mean levels of serum albumin and serum bilirubin were 3.0 g/dl and 4.1 mg/dl, respectively ; 43 patients (30 %) had ascites. There was no significant statistical difference in serum albumin and bilirubin levels between the colonic edema and non-colonic edema group ( $p > 0.05$ ), though ascites was more common among the former group.

**Conclusion :** In cases of liver cirrhosis, CT evidence of colonic edema is not uncommon. The ascending colon is most frequently involved, though disease severity does not vary significantly according to site. When CT reveals the presence of colonic edema, further diagnostic evaluation is not necessary if there is no evidence of clinical symptoms.

**Index words :** Colon, CT  
Colon, abnormalities  
Liver, cirrhosis

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