

1

2

3

:
:
20
,
:
(60%),
(35%), (10%), (5%), (5%)
9 5 , 2
, 1
2
:

(Living related liver transplantation)
(end-stage liver disease) 가

(biliary atresia)(65%), (Wilson's disease)(15%),
(fulminant hepatic failure)(10%),
(10%)
2 16 (:6) ,
14 1 2 (:24

가 (1,2).
가 ,
(transplanted liver)

가 , 16
(3-7). 47 , 19 38
ATL HDI 3000 unit (Bothell,
Washington, U.S.A) 4-7 MHz transducer
Somatom plus 4(Sie- mens,
Erlangen, Germany)

1994 12 1997 4 (rejection)
20
6 13.1 (: 1.9) 7:13 Fisher's exact test
가

1
2
3

1998 9 18 1999 7 12

가
(60%) (Table 1).

2 14 (:5) ,
14 29 (:24) .
12

(fever) 가
7 (aspiration)

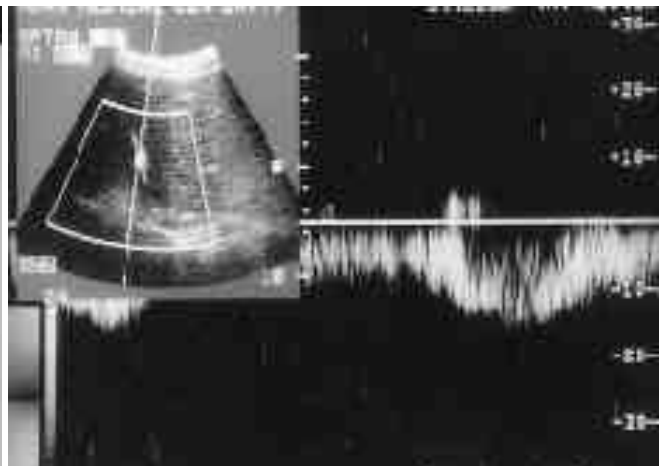
1
(periportal edema) 7 (35%)
2 14 (:5
) , 14 29 (:24
) (Fig. 1). 2 (10%)
3 6



Fig. 1. Periportal edema
CT scan shows periportal hypoattenuating collar (black arrows) and normal hepatic vein (white arrows).



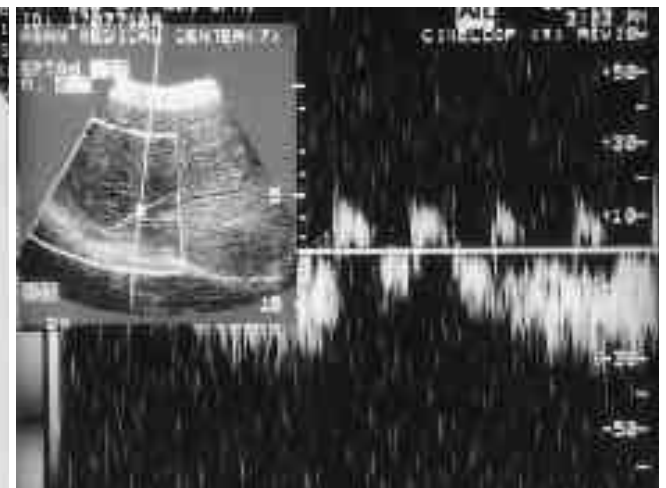
A



B



C



D

Fig. 2. Anastomotic narrowing of the IVC

- A. Angiograms shows severe anastomotic narrowing (arrow) of the junction of IVC and hepatic vein.
B. Doppler US shows lack of cardiac pulsatility in the hepatic vein.
C. After percutaneous transluminal angioplasty (PTA), severity of anastomotic narrowing was markedly improved (arrow).
D. Also, Doppler US performed after PTA shows normal cardiac pulsatility in the hepatic vein.

(Fig. 2). 1 (5%)
2

, 16

(Fig. 3). 1
(5%) 6

(Fig. 4).

5

2

, 1

2

7

2

1

6

(P = 0.50).

(re-

transplantation)

Table 1. Most Frequent Post-operative Imaging Findings after Living Related Liver Transplantation

| Findings | Number (n= 20) |
|----------------------------------|----------------|
| Perihepatic fluid collection | 12 (60%) |
| Periportal edema | 7 (35%) |
| Anastomotic narrowing of the IVC | 2 (10%) |
| Biliary stricture | 1 (5%) |
| Focal hepatic infarction | 1 (5%) |

IVC : inferior vena cava



A

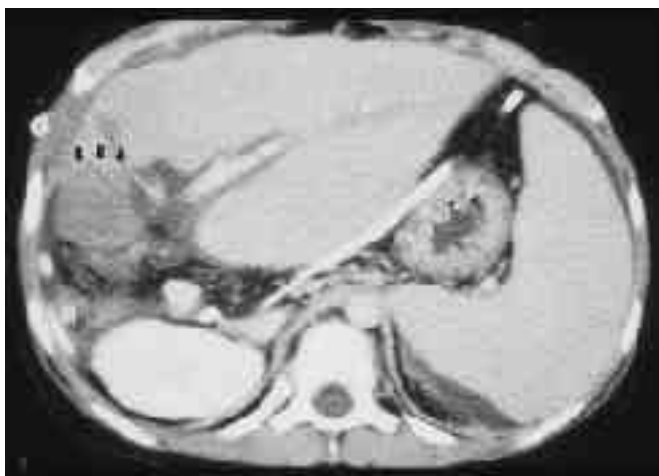


B

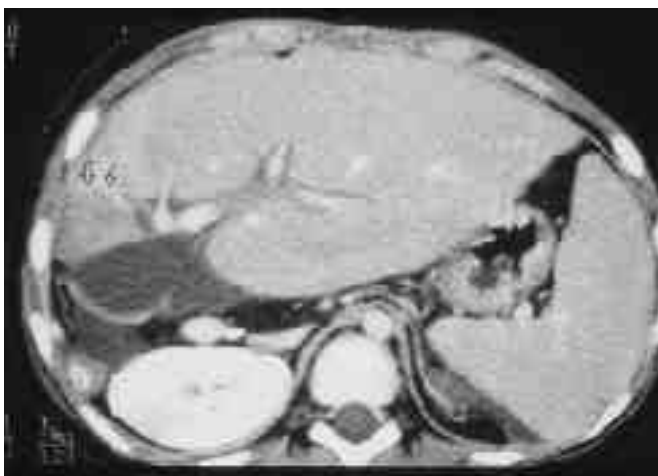
Fig. 3. Biliary complication

A. CT shows intrahepatic bile duct dilatation in left lateral segment.

B. PTBD was performed and PTC shows the strict. in anastomosis site (arrow) of bile duct with intrahepatic duct dilatation.



A



B

Fig. 4. Focal hepatic infarction

A. CT scan obtained 6 days after transplantation shows focal hypoattenuating lesion in medial segment of left lobe (black arrows).

B. Follow-up CT scan after 16 days shows atrophy (white arrows). Perihepatic fluid collection is also visualized.

(6,8).
 가 가
 85%
 (6,18).
 (7). (19),
 (5,6).
 Wechsler (9)
 (10,
 11). Marincek (12)
 가
 7
 2 (30%)
 5
 2 (40%)
 가
 가
 가 (Doppler)
 가
 3 4 가
 (13,14).
 가 가 (6,15). 가
 42%
 (biloma)
 19%
 (3). 가 가
 가

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Post-operative Imaging of Living Related Liver Transplantation in Pediatric Patients¹

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Purpose: The purpose of this study was to evaluate the findings and significance of postoperative imaging after living related liver transplantation (LRLT) in pediatric patients.

Materials and Methods : We retrospectively reviewed all imaging findings, including those of post-LRLT ultrasonography (US) and computed tomography (CT), in 20 children who had undergone LRLT at our institute.

Results : Postoperative findings on US and CT were perihepatic or subcapsular fluid collection (60%), periportal edema (35%), anastomotic narrowing of the IVC (10%), biliary stricture (5%), and focal hepatic infarction (5%). Liver biopsy was performed in nine patients in whom rejection was clinically suspected, and pathologic examination revealed acute rejection in five. US and CT revealed perihepatic fluid collection in one of these, periportal edema and fluid collection in two, and normal findings in two.

Conclusion : An understanding of the various postoperative findings after LRLT is helpful for accurate diagnosis and appropriate decisions regarding the preservation of normal graft function.

Index words : Liver, transplantation

Liver, US

Liver, CT

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