

## TIPS

1

. 2 .

: 가 (TIPS)  
 가  
 : TIPS 64  
 . TIPS  
 (group 1, n = 40) (group 2, n = 24)  
 (n = 54) (n = 60) . TIPS  
 . TIPS (grade 1),  
 (grade 2), (grade 3)  
 ANOVA  
 $\chi^2$   
 :  
 (p < .001)  
 (p > .05).  
 가  
 : TIPS  
 가  
 가  
 가  
 (2).  
 (transjugular TIPS 가  
 intrahepatic portosystemic shunt, TIPS) 가  
 가  
 (3). 가  
 가  
 TIPS TIPS  
 TIPS  
 가  
 가  
 (1). 가  
 가  
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 가  
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1

2

1999 12 8

2000 2 29

TIPS

64

가 50 , 가 14 , 50.7 (12-72 )

43 , 21

Colapinto needle (Cook, Bloomington, U.S.A.) 10mm

Wallstent (Schneider, Minneapolis, U.S.A.) 5 F

3-8mm (Cook, Bloomington, U.S.A.)

TIPS 2

Group A (n = 40), Group B (n = 24)

(n = 60) (n = 54)

(Table 1). Grade 1 ( ), Grade 2 ( ), Grade 3 ( )

TIPS (portosystemic pressure gradient, PPG)

Group A B

ANOVA test

$\chi^2$  test

(Group 1) 70

TIPS PPG

Grade 1 (n = 23) 11.3 mmHg, Grade 2 (n = 38) 9.8mmHg, Grade 3 (n = 9) 6.89mmHg (Table 2).

(Group 2) 44

Grade 1 (n = 8), Grade 2 (n = 29), Grade 3 (n = 7) 8.0mmHg, 7.7mmHg, 8.6mmHg

(p < .001)

(p > .05) (Table 2).

Table 1. Post TIPS Endoscopic Examination of 64 Patients (114 Varices)

	Esophageal Varices	Gastric Varices	Total
Group 1	34	36	70
Group 2	20	24	44
Total	54	60	114

Group 1. TIPS without variceal embolization

Group 2. TIPS with variceal embolization

Table 2. Relationship between Endoscopic Change and Post-TIP Portal Pressure Reduction

Endoscopic Change	Varices	Mean Portal Pressure Reduction (mmHg)	SD
Group 1			
Grade 1	23	11.3	4.4
Grade 2	38	9.8	3.0
Grade 3	9	6.9	2.8
Group 2			
Grade 1	8	8	7.8
Grade 2	29	7.7	4.5
Grade 3	7	8.6	5.6

Group 1. TIPS without variceal embolization

Group 2. TIPS with variceal embolization

Grade 1. Complete disappearance

Grade 2. Partial disappearance

Grade 3. No change

SD : standard deviation

Table 3. Post TIPS Endoscopic Change of Esophageal and Gastric Varices

Endoscopic Change	Esophageal Varices	Gastric Varices
Grade 1	12 (22%)	20 (33%)
Grade 2	33 (61%)	33 (55%)
Grade 3	9 (17%)	7 (12%)

p < 0.05

Grade 1. Complete disappearance

Grade 2. Partial disappearance

Grade 3. No change

Grade 1, 2, 3가 22%, 33%, 17%  
33%, 55%, 12%

(p < .05) (Table 3).

PPG가 12mmHg

가

(4).

가가가

(2).

가

가

가

가

가

TIPS

TIPS

(short or posterior gastric vein)  
(gastrorenal shunt)

가 .  
가 가 (9, 10).  
가 59% 41%  
TIPS 가 9% 가  
가 (9). 가  
17% 가  
TIPS .  
(PPG, 12mmHg )  
가 .  
PPG 가 (8).  
가 가 (5).  
TIPS 가 (12).  
가 TIPS (13).  
TIPS  
9mmHg-10, 6mmHg (6, 7).  
가 (14).  
TIPS 가  
가 82%, 가 88%  
TIPS 33%, 22%  
TIPS 가  
가 가  
가 가  
가 가  
20-70%  
2 30% 6  
40-70% 50% (13).  
(8).  
가

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## Post-TIPS Change of Esophagogastric Variceal Size on Endoscopy<sup>1</sup>

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**Purpose:** To evaluate the relationship between endoscopic change in esophagogastric varices and post transjugular intrahepatic portosystemic shunt (TIPS) portal pressure reduction, and to study any difference in post-TIPS endoscopic change between esophageal and gastric varices.

**Materials and Methods:** Sixty four patients who had undergone pre- and post- TIPS endoscopic examination were analysed. They were divided into two groups, Group 1 (n = 40) and Group 2 (n = 24), according to whether they had not or had, respectively, undergone post-TIPS residual variceal embolization. The varices were classified as either esophageal (n = 54) or gastric (n = 60). Post TIPS endoscopic change was evaluated as Grade 1 (complete disappearance), Grade 2 (partial disappearance), or Grade 3 (no change). Mean pressure reduction between the pre and post TIPS portosystemic pressure gradient was checked, and statistical correlation between mean portal pressure reduction and endoscopic change in Group 1 and Group 2 was evaluated using the ANOVA test. By means of the  $\chi^2$  test, post-TIPS endoscopic change between esophageal and gastric varices was also evaluated.

**Results:** In Group I, a significant statistical relationship was found between endoscopic change and mean portal pressure reduction ( $p < 0.001$ ), but in Group 2, no such relationship was found ( $p > 0.05$ ). No significant statistical difference was found between endoscopic change in esophageal and in gastric varices ( $p > 0.05$ ).

**Conclusion:** In patients who had not undergone post-TIPS residual variceal embolization, endoscopic change in gastroesophageal varices correlated significantly with post-TIPS portal pressure reduction. With regard to post-TIPS endoscopic change, there was no significant difference between esophageal and gastric varices.

**Index words :** Esophagus, varices  
Stomach, varices  
Shunts, portocaval

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5 12 ( )

3:00 - 4:00 : , Team

4:00 - 5:30 :

5:30 - 6:00 : Role Play Subject

6:00 - 6:10 : Welcome Remark( )

6:10 - 6:30 : ( )

6:30 - 7:00 : ( )

7:00 - 10:00 : Recreation

10:00 - 12:00 : , (Beer Party)

5 13 ( )

5:30 - 6:30 :

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7:00 - 8:00 :

8:00 - 9:00 : : , , ( )

9:00 - 10:40 : Team Role Play

10:40 - 11:20 : 가

11:20 - 11:30 : Closing Remark( )

11:30 - 12:00 : Checkout

12:00 - 1:00 :

1:00 :