

(TIPS)

1

: TIPS

가

: 1991 8 1998 1 ,

88

TIPS

, 53

TIPS

141

Kaplan-

Meier

Log-rank

: 33

19

23%/12%, 31%/25%, 53.7%/42% .

가

, Log-rank

: TIPS

14

1 , 2 , 3

2

가

2

(p > 0.05).

가

80-94%

1

57-66%

1991 8

1998 1

(1,2). Richter (3) 1990

141

TIPS

88

(Transjugular Intrahepatic Portosys-

53

temic Shunt, TIPS)

TIPS

(4-6).

141

33

가 28

가 5

3

63

TIPS

47.7

TIPS

가

21.1/13.3 mmHg,

23.8/12

mmHg

1.3 mmHg

TIPS

(stainless steel coil)

(P>0.05).

가

Childs

A가

(7,8).

13 , 19 , B가 28 , 46 , C가 12 , 23

가 12 , 17 ,

가 9 , 8 ,

TIPS

가

가 32 , 63

(Table 1), Chi-square

(P > 0.05).

TIPS

Ring Tranjugular intrahep-

atic access set(Cook, bloomington, IN)

1998 6 26

1998 11 27

(standard technique) 10 mm
Wallstent(Schneider, Minneapolis, Minn) . 141
53 TIPS 3-8 mm s-
tainless steel coil(Cook, Bloomington, IN)

tech, Watertown, MA)
mm

가
53 1 2160 (1490 ± 136)
88 1 1920 (1153 ± 57) 141
14 , 19)
5 가 follow-up 가
103

Kaplan- Meier

Log-rank

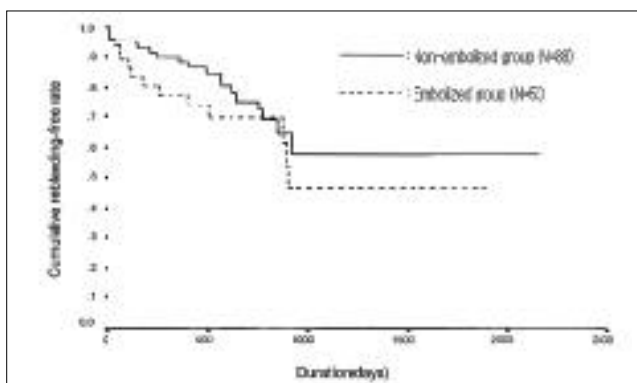


Fig. 1. Long-term Cumulative Rebleeding Rates. Cumulative rebleeding rates are highest within two years in embolized cases and highest after two years in non-embolized cases, however there is no statistical significance between the two groups($p > 0.05$).

(TIPS)

TIPS 53 1
2,160 (1490 ± 136) 14
1920 (1153 ± 57) 19

Kaplan-Meier

1 , 2 , 3
23%/12%, 31%/25%, 53.7%/42%
2 가 ,
2 가 , Log-
rank 가 ($p > 0.05$), (Fig. 1).

Child
Chi-square

($p > 0.05$).

33 ,
11 22 TIPS
14 , 9 TIPS , TIPS
9
(Fig. 2).

TIPS

가
(4-6). TIPS
가 ,
(hepatofugal flow)
가 (hepatopetal flow) , 가
가
(9). TIPS

Table 1. Childs Classification, Endoscopic Finding and Mean Portohepatic Pressure Gradient of Patients.

		Embolized(N= 53)	Non-embolized(N= 88)
Childs classificaton	A	13	19
	B	28	46
	C	12	23
Endoscopic finding	Esophageal varix	12	17
	Gastric varix	9	8
	Gastroesophageal varix	32	63
Mean portohepatic pressure gradient (mmHg) (Pre-/postprocedure)		21.1 / 13.3	23.8 / 12

($P > 0.05$)



A



B



C

Fig. 2. 54-year-old woman underwent TIPS for massive variceal bleeding. During the procedure, we performed coronary vein embolization using several stainless steel coils(A,B). When recurrent variceal bleeding attacked after two years, the angiogram revealed recanalization of previously embolized vein(C).

가 12 mmHg , 3 (23.4%) , 가
 , 가 12 mmHg , , Child C group 가
 (5). 24.8% 53% .
Coldwell (12) 10-12 mm (s-
mall-caliber portocaval shunt) 33
1-4
가 가 13 95%
(4). , 13 ,
 . L ' , 가
Hermine (10) bucrylate 가
400 , Laberge (4) TIPS 34 가
(12). 가 (perfusion)
가
TIPS 18-31% (8),
(11) , 3 17 (35%)
, 15 6 , 가 (13),
477

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Efficiency of Variceal Embolization during Transjugular Intrahepatic Portosystemic Shunt (TIPS) with Stainless Steel Coil¹

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Purpose : To evaluate the efficiency of variceal embolization using a stainless steel coil during TIPS for recurrent variceal bleeding.

Materials and Methods : In 53 of a total of 141 patients who underwent TIPS for gastric or esophageal variceal bleeding between August 1991 and Jan 1998 we performed variceal embolization using a stainless steel coil during the procedure. To compare embolized and non-embolized cases the cumulative rebleeding rate was calculated by the Kaplan-Meier method and statistical significance was analyzed using the Log-rank test.

Results : Of the 33 patients who suffered recurrent variceal bleeding, 14 had undergone variceal embolization and 19 had not. One-year, two-year and three-year rebleeding rate in embolized and non-embolized cases were 23%/12%, 31%/25%, and 53.7%/42%, respectively. Cumulative rebleeding rates are highest within two years in embolized cases and highest after two years in non-embolized cases, however there is no statistical significance between the two groups($p > 0.05$).

Conclusion : Variceal embolization with stainless steel coil during TIPS does not effectively prevent recurrent variceal bleeding.

Index words : Esophagus, varices
Shunts, portosystemic
Veins, therapeutic blockade

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