

Rapid Communication

Transient tricuspid regurgitation after endoscopic injection sclerotherapy for esophageal varices

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In our series of patients treated with endoscopic injection sclerotherapy for esophageal varices(EIS), we encountered the new onset of cardiac systolic murmurs after EIS. Thereafter, Doppler echocardiography was performed before and after EIS and the frequency of tricuspid regurgitation(TR) associated with EIS was evaluated. The subjects were eight patients with liver cirrhosis and esophageal varices(Table). The EO-P method<sup>1)</sup> of EIS was used. TR developed in five out of the six cases in which it had not been present before EIS. In these five cases, TR was finally resolved. In the two cases in which TR was already present, its intensity was increased after EIS, but it returned to the same degree as it before EIS. The intensity of TR increased even in three cases in whom neither ethanolamine oleate(EO) nor Aethoxysclerol(AS) was injected into the varices. However, TR did not appear in some cases in whom intravariceal injection was performed. The effects of EO and AS on the vascular endothelium are well-known. TR, which was shown by Doppler echocardiography, was initially considered to be probably due to drug-induced transient organic changes of the tricuspid valve. However, TR was also noted without intravariceal injection of EO or AS. There are reports, that after, EIS pulmonary micro-emboli occur, or pulmonary vascular resistance increases<sup>2)</sup>. In some of our cases, pulmonary valvular regurgitation appeared just after EIS, simultaneously with TR. Thus, TR was considered to be due to a transient rapid rise in pressure and volume loading of the right heart secondary to EIS.

Key Words:

transient tricuspid regurgitation, endoscopic injection sclerotherapy

References:

- 1) Miyoshi H, et al:Gastroenterol Endosc 1987; 29:69 (in Japanese)
- 2) Kumazawa K, et al:Jpn J Gastroenterol 1985; 82:391 (in Japanese)

Table Patient's Profiles and Findings of Doppler Echocardiogram before and after EIS

Age	Sex	Primary disease	Child's class	Compl. cation	TR <sup>1,4</sup> before EIS	TR after EIS		
						1st	2nd	3rd
1. 61	F	NANB	B	Af <sup>1</sup>	1+	2+	2+	1+
2. 49	M	alcoholic	A	-	-	-	-	-
3. 54	M	alcoholic	A	-	-	1+	1+	1+
4. 62	F	NANB	A	HT <sup>2</sup>	-	1+	-	/
5. 50	F	IPH	A	RA <sup>3</sup>	1+	2+	1+	/
6. 61	M	alcoholic	A	-	-	/	1+	1+
7. 59	M	alcoholic	B	-	-	1+	1+	3+
8. 62	M	NANB	A	-	-	1+	-	/

\* 1 Af atrial fibrillation      \* 4 TR tricuspid regurgitation  
\* 2 HT hyperthyroidism  
\* 3 RA rheumatoid arthritis      1+ 1/4TR, 2+ 2/4TR, 3+ 3/4TR