To Assess the Size of Esophageal Varices for Prediction of Variceal Bleeding

Ari Fahrial Syam

* Division of Gastroenterology, Department of Internal Medicine, Faculty of Medicine University of Indonesia/Dr. Cipto Mangunkusumo General National Hospital, Jakarta

The risk of esophageal variceal bleeding is clearly related to the size of esophageal varices (EV). Therefore primary prevention of variceal bleeding is given in patients with previously diagnosed as a large EV (grade 2 or 3) detected by periodical upper digestive endoscopy.[1,2] In general the periodical upper tract endoscopy in these patients might result in a heavy economic burden even for developed countries. The repeated examinations, when not performed under profound sedation, are often poorly accepted by patients who may refuse further follow up.

One of new technique to predict the larve varices is transient elastography (TE).[3,4] TE is a useful tool to diagnose significant fibrosis and cirrhosis in chronic liver disease patients. In fact a good correlation between stiffness and hepatic-vein portal gradient (HVPG) was found only up to HVPG values of 10-12 mmHg, whereas for higher values the correlation was suboptimal.[5] This could be explained by the fact that TE measures the initial rise of portal pressure caused by the accumulation of a fibrillar matrix, but not the complex hemodynamic changes of late portal hypertension.[6] So this examination may be used to predict the presence of portal hypertension. By using TE we can measure liver stiffness (LS) that can allow prediction of the presence of large EV in patients with cirrhosis. It may help to select patients for endoscopic screening. Study from Romania show that LS measurement by means of TE is a reliable noninvasive method for the detection of EV and for the prediction of varices bleeding.[7]

In this issue, Kusnanto et al, evaluated non endoscopic examination which include ascites, splenomegaly, thrombocytopeni, Child-Pugh and portal vein diameter as predictor of large VE for variceal bleeding. Splenomegaly evaluated by physical examination and abdominal ultrasound, widening of portal vein diameter, were not significantly in relation to the degree of varices. Other parameter such as platelet count level and the degree of Child Pugh were also not statistically significant in relation to the degree of esophageal varices. Other study using a standard color Doppler utrasonography (USG) scanner (ECOCEE, Toshiba, Otawara, Japan) with a 5-MHz convex probe evaluated the hepatofugal flow velocity. The hepatofugal flow velocity in the left gastric vein was higher in patients who had had a recent variceal bleed. The hepatofugal flow velocity also shown a statistical correlation with the grade of esophageal varices.[8] Finally, non invasive technique using the doppler USG may potential benefit than clinical manifestation in monitoring patients with portal hypertension.

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