

White Ball Sign

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Case Report

An 81-year-old man with alcoholic cirrhosis presented with hematemesis, melena, and hypotension. Examination revealed ascites and chronic liver disease stigmata. Esophagogastroduodenoscopy (EGD) revealed multiple large columns of esophageal varices. No other bleeding sources were seen. Using a Cook 4, 6, 10 Shooter® (Cook Medical, Bloomington, IN) multi-band ligator, the varix was ligated at the site of a platelet plug, which suggested recent hemorrhage (Figure 1). After blood extruded at the site of this defect, the ligated varix demonstrated the white ball sign (Figure 2). First described by Matsutani and colleagues, the white ball sign is observed after effective variceal ligation at the bleeding site.¹⁻³ It is hypothesized that the outflow of blood from the rupture point on the varix is the likely cause of this phenomenon.¹⁻³ Ligation at non-bleeding sites results in a purple ball appearance, representing congestion of blood in the variceal vessels captured by the band.³ Other authors have noted that the white ball sign also occurs with ligation of the bleeding point on esophogogastric varices.³ In the setting of variceal bleeding where the bleeding point is obscure, the white ball sign is particularly useful in confirming effective ligation.¹

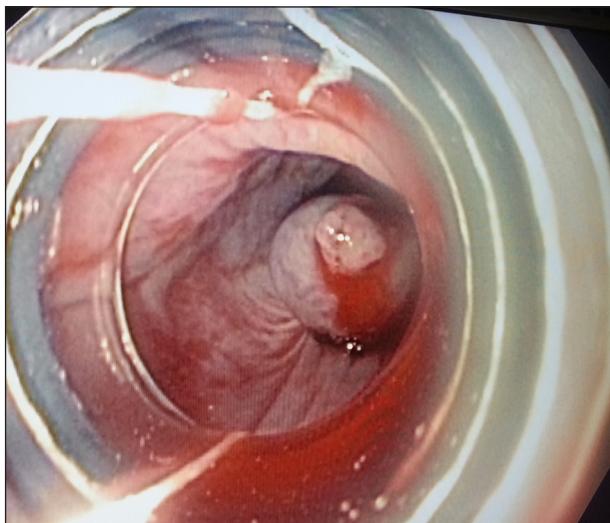


Figure 1. Appearance of varix after ligation with a Cook 4, 6, 10 Shooter® multi-band ligator suggesting recent hemorrhage.



Figure 2. The ligated varix demonstrated the white ball sign after blood extruded at the site of this defect.

References

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Disclosures

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