N-butyl-2-cyanoacrylate (Histoacryl) has been in use for almost 20 years for acute control of hemorrhage from gastric varices [1]. We present here a rarely reported complication associated with its use.

A 65-year-old man, who had been diagnosed 20 years previously with noncirrhotic portal hypertension due to bilharziasis, was admitted with gastric variceal bleeding. He had undergone esophageal variceal eradication in the past. The varices were injected with cyanoacrylate diluted with Lipiodol (1.5 ml/2.1ml). After several hours, the patient complained of chest pain and an inability to see. Investigation revealed inferior wall myocardial infarction and cortical blindness. Noncontrast computed tomography of the brain showed multiple hyperdense foci suggestive of cyanoacrylate emboli in the cerebral arteries, and bilateral occipital infarcts (Figure 1).

Further investigation in another center revealed that he had a patent foramen ovale (PFO). This was closed with a 25-mm Amplatzer PFO-occluding device via a percutaneous approach. Following this, a transjugular intrahepatic portosystemic shunt was placed. The patient’s vision improved, and he became able to perceive color, recognize faces, and count fingers at a distance of 2 m. Two months later, he was asymptomatic.

Larger volumes of glue injected, fast blood flow in large vessels, and slow injection may result in fragmentation of the glue and hence embolization [2,5]. A combined radiographic/endoscopic approach for varices larger than 10 mm, dilution of the glue with Lipiodol at ratios not exceeding 1:1, and even injection without admixture with Lipiodol have been suggested as methods of avoiding this [2]. Cerebral stroke is still a rare complication after the injection of cyanoacrylate. Modified injection techniques might be able to prevent this potentially life-threatening complication.

References


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