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Regarding "Transarterial Embolization of Anterior Cranial Fossa Dural AVFs as a First-Line Approach: A Single-Center Study"

We read the article by Puylaert et al[1] with interest. The authors presented 15 anterior cranial fossa dural arteriovenous fistulas (ACF DAVFs) in patients who underwent treatment using transarterial embolization (TAE) with *n*-BCA as a first-line treatment. Complete occlusion with TAE alone was reached in 69% of patients. In the 13 cases of ophthalmic artery (OphA) embolism, no related complications occurred. Copolymers (Onyx; Medtronic) are unfavorable in embolizing via the OphA because they require reflux to provide a forward push of the embolic agent, as opposed to *n*-BCA, which allows better control of reflux. In the authors' opinion, the use of *n*-BCA is a reliable contributor to the relatively high rate of successful TAE without complications.

However, we have some different viewpoints to express. A study found that Onyx had a significantly higher immediate and long-term occlusion rate than *n*-BCA.[2] Compared with *n*-BCA, Onyx has a slower rate of delivery, allowing better control of the embolism as it travels from the artery to the dural vein. Onyx is cohesive and nonthrombogenic, improving lesion packing and reducing the risk of parenchymal venous occlusion. Slower delivery also enables the interventionalist to control and optimize the extent of artery-to-artery embolization.[2] Furthermore, Onyx is currently used in most DAVF treatments, while *n*-BCA is used in only a few cases.

Our team recently published the largest single-center study on the treatment of ACF DAVFs with TAE.[3,4] In comparison with a 69% complete occlusion rate, our use of Onyx in conjunction with a balloon or *n*-BCA resulted in an immediate complete occlusion rate of 82.5% (33/40). There was only 1 case of retinal central artery ischemia, but the patient recovered well.[3] Currently at our center, *n*-BCA is primarily used as a remedial measure after Onyx embolization or for embolizing pial branches. Furthermore, techniques like the pressure cooker technique can help prevent embolic agent reflux, promoting fistula and proximal draining vein occlusion. Uncommon arterial access, such as the sphenopalatine artery, can also be used to treat ACF DAVFs.[4]

The use of *n*-BCA for the treatment of ACF DAVFs via the OphA is not a common treatment technique and may not have a reliable reference value for most medical centers.

Disclosure forms provided by the authors are available with the full text and PDF of this article at www.ajnr.org.

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