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AJNR Am J Neuroradiol 2009, 30 (2) e24

doi: <https://doi.org/10.3174/ajnr.A1310>

<http://www.ajnr.org/content/30/2/e24>

This information is current as
of April 23, 2024.

When is an Atypical DVA an AVM?

We read with great interest a recent letter in the *American Journal of Neuroradiology* by Fushimi et al.¹ They report a developmental venous anomaly (DVA) with unusual imaging findings on 3T susceptibility-weighted imaging, and they suggest that it may reflect a “relatively higher flow in the DVA...”. We wish to suggest that increased flow in a DVA would be considered an atypical feature and may, in fact, reflect that this lesion represents a mixed vascular malformation with some imaging features of both a DVA and an arteriovenous malformation (AVM). Im et al² reported in the June issue of the *Journal of Neurosurgery* 15 cases of “Venous Predominant Parenchymal Arteriovenous Malformations.” The editorial in the same issue highlights the difficulty in identifying these unusual AVMs without angiography. It seems to us that this technique of susceptibility-weighted imaging at high field has the potential to differentiate a DVA from a venous predominant parenchymal arteriovenous malformation, but there is limited experience with this imaging technique in a clinical setting at this point. We believe it would be of considerable interest and importance to the patient reported by Fushimi et al¹ to perform angiography because treatment may be warranted if there is evidence of AV shunting.

We would like to draw attention to this entity that is not widely appreciated in the neuroradiology community and encourage investigations into noninvasive techniques that might differentiate these similar-appearing vascular lesions.

References

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2. Im SH, Han MH, Kwon BJ, et al. **Venous-predominant parenchymal arteriovenous malformation: a rare subtype with venous drainage pattern mimicking developmental venous anomaly.** *J Neurosurg* 2008;108:1142–47

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DOI 10.3174/ajnr.A1310