Management of Patients with Cranial Dural Arteriovenous Fistula and Secondary Parkinson's Syndrome: Comment

Pinar Beyaz^a Gerasimos Baltsavias^b

^aNeuroradiology Department, Klinikum Bremen Mitte, Bremen, Germany; ^bNeurosurgical Center Zurich, Hirslanden Clinic Zurich, Zurich, Switzerland

With great interest, we read the paper “Management of Patients with Cranial Dural Arteriovenous Fistula and Secondary Parkinson’s Syndrome: Pathophysiology and Treatment Options” by Velz et al. [1].

The authors should be commended for drawing our attention to this particular presentation of dural fistulae and for their detailed description of the vascular shunt anatomy.

However, there is a point that may cause confusion, which, I suppose went unnoticed by the authors. Although they classify correctly the presented arteriovenous fistula according to the DES scheme as a bridging vein shunt with direct, exclusive, and strained reflux, they describe the dural arteriovenous fistula as draining “through the straight sinus into the median tentorial sinus, supraculminar vein, superior vermian vein, and the system of the vein of Galen.” If the venous drainage of the shunt was through the straight sinus, then the shunt should be classified as a dural sinus shunt or isolated sinus shunt [2]. Then the reflux should be by definition non-

direct. If we rely though on the provided figures, no opacification of the straight sinus is seen (unclear if one distinguishes a median tentorial sinus and we would very much guess that one does not), as it should be in a bridging vein shunt, where the shunt is located at the intradural segment of the bridging vein and its normal exit to the sinus is occluded [3]. Therefore, the venous drainage, consistent with the angiographic images and the above classification, should be described as “through the supraculminar vein, the superior vermian vein, and the system of the vein of Galen.”

Conflict of Interest Statement

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References

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- 2 Baltsavias G, Roth P, Valavanis A. Cranial dural arteriovenous shunts. Part 3. Classification based on the leptomeningeal venous drainage. *Neurosurg Rev*. 2015 Apr;38(2):273–81.
- 3 Baltsavias G, Kumar R, Avinash KM, Valavanis A. Cranial dural arteriovenous shunts. Part 2. The shunts of the bridging veins and leptomeningeal venous drainage. *Neurosurg Rev*. 2015 Apr;38(2):265–71.