Low-flow vascular malformation
Contribution of sequential postcontrast MRI acquisitions

A 50-year-old man was referred for subacute intracranial hypertension. MRI revealed a well-circumscribed lesion in the posterior fossa that was hypointense on T1-weighted imaging and hyperintense on T2-weighted imaging (figure 1, A and E). Cerebral blood volume map and sequential postcontrast T1-weighted images showed progressive increase in the homogeneity of the contrast enhancement, indicating that the lesion had low but substantial flow (figure 1, B–D). Digital subtraction angiography showed a vascular lesion with a central to peripheral pattern of vascularity and absence of early venous return (figure 1, F–H). The lesion was resected. Pathologic examination revealed a capillary-venous malformation (figure 2).1,2 This case highlights that MRI can identify low flow in vascular malformations.

Olivier Heck, MD, Alexandre Krainik, MD, PhD, Kamel Boubagra, MD, Florence Tahon, MD, Arnaud Attye, MD, Jean François Le Bas, MD, PhD, Jean Boutonnat, MD, PhD, Sylvie Grand, MD

From the Departments of Neuroradiology and MRI (O.H., A.K., K.B., A.A., J.F.L.B., S.G.), University Hospital of Grenoble; the Department of Diagnostic and Interventional Neuroradiology (O.H.), University Hospital of Nancy; and the Department of Pathology (J.B.), University Hospital of Grenoble, France.

Author contributions: Dr. Heck: design and conceptualization of the study, analysis and interpretation of the data, drafting and revising the manuscript for intellectual content. Dr. Krainik: revising the manuscript for intellectual content. Dr. Boubagra: analysis and interpretation of the data. Dr. Tahon: analysis and interpretation of the data. Dr. Attye: revising the manuscript for intellectual content. Dr. Le Bas: reviewing the manuscript for intellectual content. Dr. Boutonnat: analysis and interpretation of the data. Sylvie Grand: design and conceptualization of the study, analysis and interpretation of the data, drafting and revising the manuscript for intellectual content.

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Paraffin-embedded section stained with hematoxylin & eosin–Safran shows large blood vessels with thin walls. Absence of proliferating cells; no expression of GLUT1. This can be defined as capillary-venous malformation according to the International Society for the Study of Vascular Anomalies classification system.

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Correspondence to Dr. Heck: olivier.heck1@gmail.com


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