Introduction

Strategies for management and outcomes of arteriovenous malformations

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Cerebral arteriovenous malformations (AVMs) represent a heterogeneous and complex pathology. Published classification schemes and algorithms for treatment are largely based on reported case series. The dichotomization of ruptured versus unruptured presentation further complicates the consolidation of treatment recommendations. Increasing use of endovascular and stereotactic radiosurgery, alone or in combination for intervention, has also created more debate regarding the standard of care for patients with these lesions. Various tools are now available to neurosurgeons treating patients with cerebral AVMs, and we must carefully investigate how to best apply our knowledge and technology to optimize patient

outcomes. The articles that follow contribute to our understanding of the origins, the natural history, and the effects of our treatments on patients with cerebral AVMs.

The articles in the present issue are unique, not only for their content but also for their timing. The recent publication of the ARUBA trial results (A Randomized Trial for Unruptured Brain Arteriovenous Malformations) has placed a spotlight on the management of unruptured brain AVMs.¹ These complex lesions have been the subject of many prior publications. However, the ARUBA trial results challenge the current management strategies employed at participating institutions and beyond. This issue of *Neurosurgical Focus* provides insight into the details and implications of the ARUBA trial, as well as contemporary experiences of vascular neurosurgeons with ARUBA-eligible patients. Additionally, the growing experience of neurosurgeons managing cerebral AVMs with radiosurgery, embolization, and microsurgery is reviewed.

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Disclosure

Dr. Cohen-Gadol reports being a consultant for Carl Zeiss Meditec. The other authors report no conflicts of interest.

Reference

1. Mohr JP, Parides MK, Stapf C, Moquette E, Moy CS, Overbey JR, et al: Medical management with or without interventional therapy for unruptured brain arteriovenous malformations (ARUBA): a multicentre, non-blinded, randomised trial. *Lancet* **383**:614–621, 2014

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