

Pial Arteriovenous Fistula: A Brief Review And Report Of 15 Surgically Treated Cases

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Aim:

The authors report their successful experience of treating 15 cases of pial arteriovenous fistula (PAVF) by direct surgery.

Material and methods:

During the period January 2010 to December 2017, fifteen patients having PAVF were treated by surgery. Only those cases were selected that had a single arterial feeding channel. There were 10 males and 5 females and their ages ranged from 5 to 53 years (average 20 years). Ten patients were less than 20 years of age. Five patients presented clinical and radiological features that suggested hemorrhage from the PAVF. Ten patients had seizures. Two patients had hemispheric symptoms or neurological deficits at the time of presentation. In 12 cases, there were no gross neurological deficits. The diagnosis was made on the basis of digital subtraction angiography in all patients and computed tomographic angiography in 9 patients. Angiography revealed that PAVF in 8 cases were supplied by middle cerebral artery, in 6 cases by anterior cerebral artery and in 1 case by branches of basilar artery. Surgical procedure involved identification of the site of fistula, obliteration of the feeding artery and resection of the entire venous varix.

Results:

The PAVF was successfully excluded from circulation in all patients. There were no neurological deficits related to the surgical procedure.

Conclusions:

Direct surgical resection of the entire PAVF is a safe and effective and probably curative method of treatment.