Vascular pineal malformation

Differential diagnosis

It is very important to perform the differential diagnosis in such cases because pineal hemorrhage is very rare and it may be associated with many different causes. The possible causes of pineal hemorrhages are pineal region tumors [1) 2) 3) 4) 5) 6) 7)].

Vascular pineal malformations are rare, and technically demanding lesions. Due to their location, endovascular techniques and radiosurgery have been increasingly used to accomplish a safe occlusion. Nevertheless, sometimes, microsurgical resection may be required.

Choque-Velasquez et al., present a retrospective review of the vascular pineal malformations operated by the senior author. Moreover, they report illustrative cases for the various types of vascular lesions with a careful analysis of the different microsurgical stages.

Eighteen patients with pineal vascular lesions were operated on between 1980 and 2015: 6 patients had vein of Galen malformations, 5 plexiform arteriovenous malformations, 6 pineal cavernous malformations, and one patient had a ruptured medial posterior choroidal artery aneurysm. A complete resection/occlusion was possible in all vascular malformations.

The pineal region is an infrequent but challenging location for vascular lesions. A careful and stepwise operative strategy for the different types of vascular lesion is paramount to accomplish an effective and safe microsurgical treatment, when other alternatives fail or are not available [8)].

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