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Multiple aneurysms of external and internal carotid arteries

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A 40 years old female presented with ptosis of the right eye and headache for six months. T2-weighted MRI showed a probable aneurysm sign in the supra-sellar region and doubtful extracranial aneurysms in right scalp (Fig. 1A). Angiograms of right common carotid artery (CCA), internal carotid artery (ICA) and external carotid artery (ECA) revealed two giant saccular aneurysms of ICA in cerebral and cervical

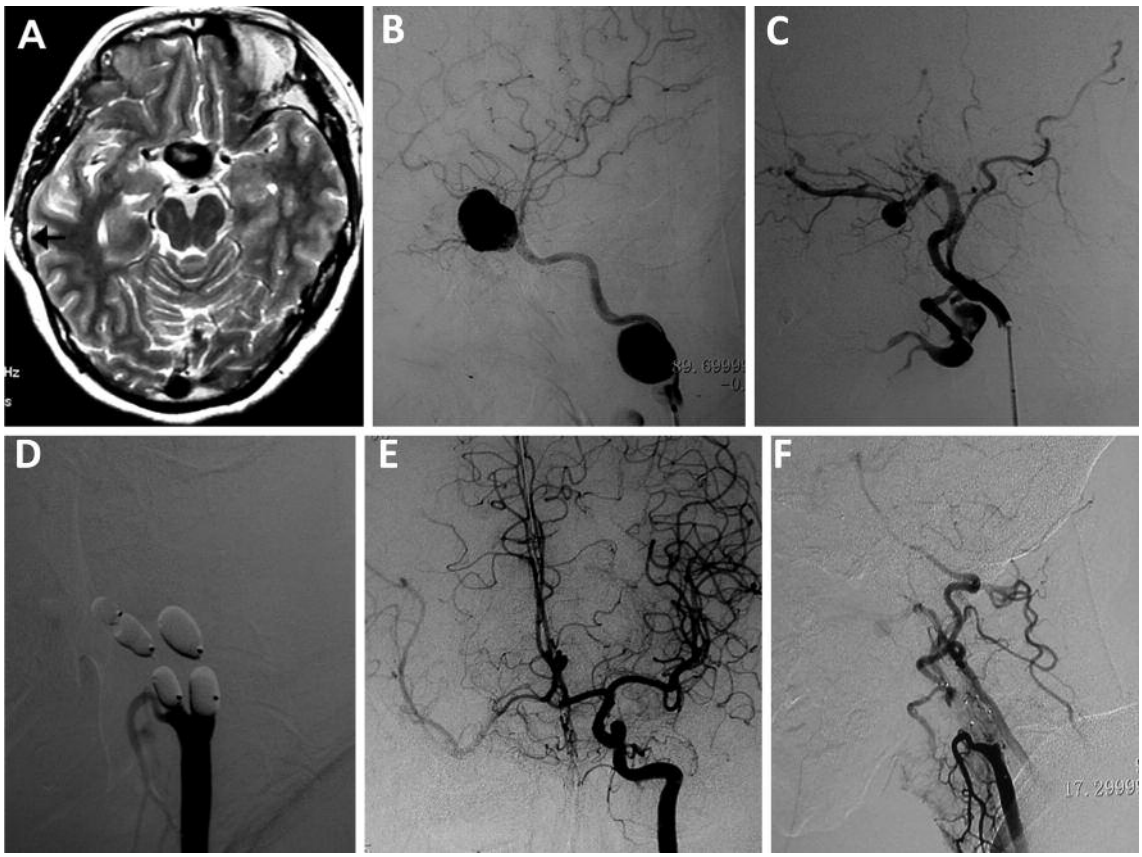

FIG. 1. — (A) MRI demonstrated an intracranial aneurysm with flow void signs and a doubtful scalp vascular lesion (arrow). (B,C) Angiograms revealed two giant saccular aneurysms of ICA and three aneurysms of ECA. (D) Right ICA and ECA were both occluded by six balloons. (E,F) The follow-up angiogram showed the good filling of right ICA, an anastomosis between superior thyroid artery and VA, and exclusion of the aneurysms.

segments (Fig. 1B) as well as two saccular aneurysms of the internal maxillary and lingual artery respectively and a fusiform aneurysm of the facial artery (Fig. 1C).

During the Balloon Occlusion Test (BOT), the right ICA was well filled from the left ICA and vertebral arteries (VA) via anterior and posterior communicating arteries. Both right ICA and ECA were thus occluded by multiple balloons (Fig. 1D). The endovascular procedure was uneventful. Follow-up angiograms three months later showed excellent flow in right ICA (Fig. 1E) and no residual or recurrent aneurysms of right ICA and ECA (Fig. 1F).

The occurrence of multiple aneurysms of ICA and ECA is rather rare (GUERRERO *et al.*, 2007; PELKONEN *et al.*, 2003). To our knowledge, multiple aneurysms of both ECA and ICA without a history of familial occurrence or trauma have not been previously reported.

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