Microsurgical Clipping of Previously Coiled Aneurysms.

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Abstract

OBJECTIVE: This study sought to show and analyze the main authors' experience (P.R. and J.M.C.) in previously coiled aneurysm surgery as an emerging challenge in today's neurosurgical practice.

METHODS: Twelve female and 8 male patients, whose ages ranged from 32 to 56 years (average 43.5), underwent surgery between April 2009 and September 2012 in 2 centers. Reasons for surgery were 13 partially occluded aneurysms and 7 recanalized aneurysms.

RESULTS: There was no mortality in this series. Aneurysmal sites were 5 anterior communicating artery aneurysms, 5 posterior communicating artery aneurysms, 3 middle cerebral artery aneurysms, 6 paraclinoid carotid artery aneurysms, and 1 aneurysm in the pericallosal artery. A patient sustained a postsurgical frontal infarction with mild neurological deficit. One of the aneurysms presented with an arterial branch at the level of the aneurysmal neck; therefore, partial clipping and packing was required. Microsurgical clipping in the remaining patients was performed successfully. Eight cases required partial coil removal before clipping.

CONCLUSIONS: Surgical management of previously coiled aneurysms is an emerging challenge in neurosurgery. Incomplete or ineffective embolizations pose an increased risk for the patient, thus requiring surgical treatment. Although not advisable, coil removal might be necessary when in the vicinity of the aneurysmal neck in order to place the clip correctly. The authors believe that adequate patient selection and careful preoperative planning are essential to reduce the incidence of patients with unsuccessful coils who will later need surgical treatment.

Keywords: Aneurysm; Clipping; Embolization; Previously coiled; Subarachnoid hemorrhage