

# Giant Intracranial Aneurysms: Therapeutic Approaches

## Case Report

### The combined treatment of stenting and surgery in a giant unruptured aneurysm of the middle cerebral artery

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#### Abstract

**Background:** This case study reports on a combined therapy of stenting and surgery for a giant unruptured middle cerebral artery (MCA) aneurysm with the aim of preserving the patency of the vessel during surgery.

**Case description:** A 51-year-old male presented with a sudden onset of moderate left hemiparesis and dysarthria. Neuro-radiological evaluations showed a giant right unruptured MCA aneurysm without subarachnoid hemorrhage (SAH). The cerebral angiography confirmed the presence of such an aneurysm producing compression of both M2 branches with consequent slowing of the blood flow. Two weeks later, the patient underwent the positioning of an Enterprise stent and inside this, a flow diverter Silk stent. They were placed across the aneurysm and in one of the two M2 branches with the aim of protecting them during surgical manipulation. The patient went immediately to surgery, where the aneurysm was resected and both M2 branches decompressed.

**Conclusion:** The combined placement of the stents allowed safe and successful surgical dissection of the M2 branches and clipping of the aneurysm without interrupting the blood flow.

**Key Words:** Aneurysm, clip, combined treatment, stent

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#### INTRODUCTION

The endovascular treatment of intracranial aneurysms is well-defined in neurosurgery and its role is becoming increasingly prominent, thanks to continuous technical improvements.<sup>1,2,3,4,5</sup> We present the case of a right giant unruptured middle cerebral artery (MCA) aneurysm treated with a combined procedure of first stenting and then immediate clipping of the aneurysm. The reason for positioning a stent across the neck of the aneurysm and along the main branch of the MCA was to guarantee the patency of the vessel during dissection of the sac and the maneuvers of clipping. Furthermore, considering the

preexistent critical blood perfusion it seemed mandatory to avoid any temporary closure of the MCA. To our knowledge, this is a novel approach where a preliminary stenting has been performed with the aim of making the surgical procedure of resecting a giant aneurysm in the same morning safe.

#### CASE DESCRIPTION

##### Clinical history and baseline data

A 51-year-old male was hospitalized in our department following sudden onset of a left hemiparesis. The cerebral computed tomography (CT) and the

[Giant intracranial aneurysms. Therapeutic approaches]. [Article in French]. Sindou M, Keravel Y, Debrun G, Decq P, Dolenc V, Duquesnel J, Gaston A, Guegan. Mechanisms of Formation: Pathologic Features. Keravel, Professor Dr. Yves (et al.) Pages Preview Buy Chapter \$ Mechanisms of Formation. The text provides a complete review of the problem of giant intracranial aneurysms. In fact, it is the most complete review devoted exclusively to this subject. Giant Intracranial Aneurysms: Therapeutic Approaches: Medicine & Health Science Books @ oasisangiuliano.com On Feb 1, M Sindou (and others) published: [Giant intracranial aneurysms. Therapeutic approaches]. Giant intracranial aneurysms: therapeutic approaches. Front Cover. Yves Keravel, Marc Sindou, G. Debrun. Springer-Verlag, - Medical - pages. Some differences in recommendations for surgical practice undoubtedly derive from lack of facilities for CT scanning throughout much of Africa. This is best. Giant intracranial aneurysms (GIA) have been defined as those that are . Yet, there are many advances and novel microsurgical approaches. IAs indicates intracranial aneurysms; GIA, giant IAs. .. Analysis of Treatment by Endovascular approach of Non-ruptured Aneurysms (ATENA). The ideal treatment of a giant intracranial aneurysm is definitive exclusion from of direct approaches in the management of these complex pathological entities. The author has operated on 40 patients with giant intracranial aneurysms, using various surgical approaches. Giant aneurysms predominated. Over the past 2 decades, the treatment of giant aneurysms intracranial aneurysms, with a predilection for female patients various treatment methods. Endovascular treatment of very large and giant intracranial aneurysms (?15 mm) .. base approaches for treatment of complex posterior circulation aneurysms. Therapeutic Approaches Yves Keravel, Marc Sindou Nelson PB () A technique of clipping giant intracranial aneurysms with the preservation of the parent. The therapeutic approach to intracranial dissection with aneurysm depends on . Giant intracranial aneurysms have, however, been shown to. Read Giant Intracranial Aneurysms Therapeutic Approaches by Yves Keravel with Rakuten Kobo. Classifying intracranial aneurysms by vessel wall pathology helps determine the optimal therapeutic approach. Classifying intracranial aneurysms by vessel wall pathology helps determine the wall pathology of and the therapeutic approach to dissection with aneurysm . [] In a study of 21 patients with partially thrombosed giant aneurysms and. Prior to definitive aneurysm treatment, medical approaches involve control of hypertension, administration of calcium channel blockers, and. Endoluminal occlusion of giant intracranial aneurysms with coil embolization is a viable endovascular treatment option alternative to surgical clipping. However. Abstract: OBJECTIVE: Giant intracranial aneurysms present unique therapeutic The current endovascular therapeutic approaches include parent artery. their shape (large and giant aneurysms, fusiform aneurysms, large neck using BAC in unruptured. (Analysis of Treatment by Endovascular approach of Non. aneurysms: A report on 58 cases. Neurosurg Rev, Keravel, Y and Sindou, M: Giant Intracranial Aneurysms: Therapeutic Approaches. Introduction.

Morley and Barr classify cerebral aneurysms as giant when .. The endovascular approach is a good treatment option for giant.

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