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Spontaneous Improvement of Diplopia by Paralysis of the External Oculomotor Nerve (IV) Secondary to Spontaneous Aneurism of the Basilar Trunk Embolized

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Abstract **Case Report**

The aneurysms of the basilar trunk are rare and can be life-threatening if neurosurgical management and rapid diagnosis are not performed. Diplopia is an important sign that is sometimes orientative and sometimes life-saving, the mechanisms are multiple, but care will be taken. orthoptic rehabilitation with acute occlusion and surgery if no regression after 6 to 12 months.

Keywords: Spontaneous Improvement, External Oculomotor Nerve.

INTRODUCTION

The aneurysms of the basilar trunk is a rare event, its anatomical description is complex (large or giant, fusiform or dissecting) with an unfavorable natural history and represent a therapeutic challenge, its treatment is either neurosurgical or endovascular. Diplopia often complicates the aneurysms of the basilar trunk, it represents the part of the ophthalmologist in the management of the consequences consequences. We expose through our patient a spontaneous regression of ine diplopia initially disabling.

OBSERVATION

This is a 52-year-old patient without CTA admitted to the emergency department for the management of grade I subarachnoid hemorrhage, emergency arteriography revealed a lobulated aneurysm of the lobular terminus. embolised by the establishment of 2 coils (Figure-1). Ophthalmologic examination to show a ptosis of the left eye and a limitation of the adduction in ODG with horizontal diplopia in the lateral gaze in ODG, the photomotor reflex was present and symmetrical direct and consensual, he had no trouble sensitive, and the biomicroscopic examination was strictly normal.

The paralysis of the external right muscles was objectified by the Lancaster, 4 Lancaster in total were asked the patient for monitoring the clinical improvement and in order to propose an appropriate treatment in each phase. The occlusion was the only treatment indicated in acute phase, we did not use botulinum toxin or prism. (Figure 2, 3, 4)

Fig-1: Aneurysm of the basilar trunk

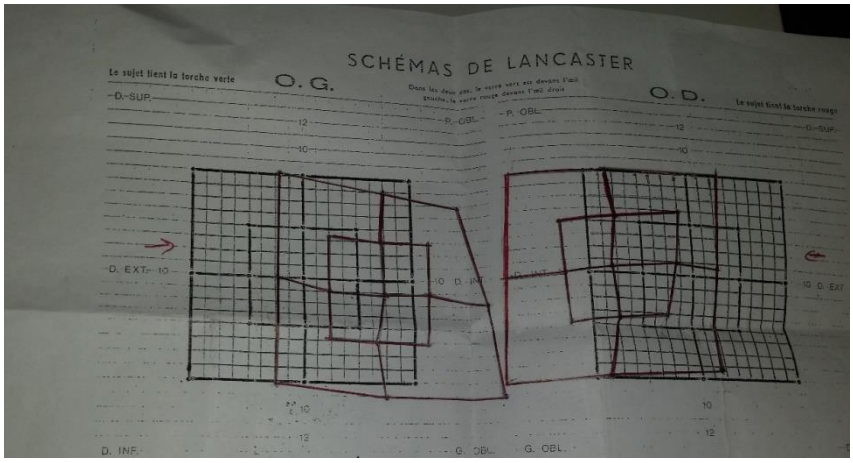

Fig-2: Significant limitation of the 2 external right muscles

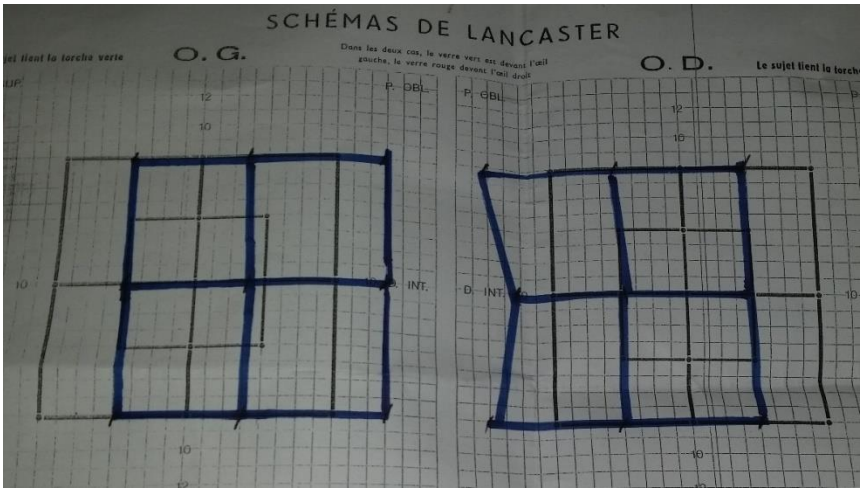

Fig-3: Paralysis of the left external right after 2 months

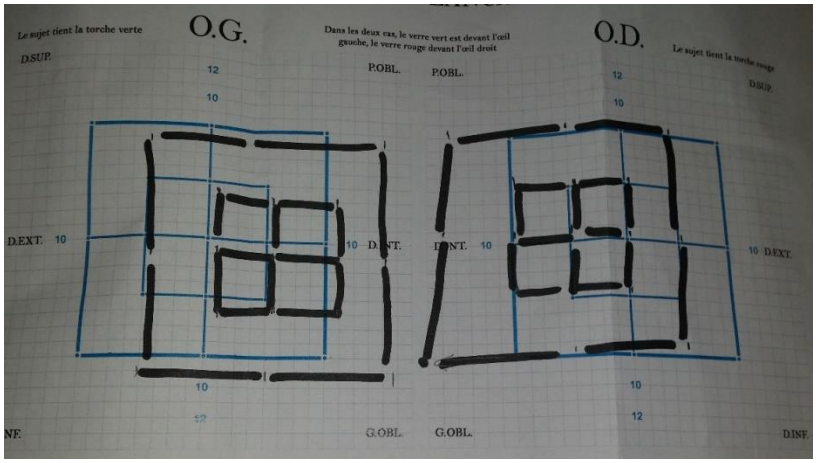

Fig-4: Slight minor limitation of the 2 external right muscles after 4 months

DISCUSSION

Spinal aneurysm is a rare event, characterized by typical symptomatology of cerebral aneurysmal lesions. Intracranial arterial aneurysms are fusiform and localized with basilar trunk and middle cerebral artery [1, 2]. The treatment was mainly surgical before the advent of endovascular interventional radiology making the treatment well codified [3].

Painful ophthalmoplegia may be the only key referral symptom for a prompt and adequate diagnosis that should prompt the practitioner to request an emergency to request angiographic X-ray examination. Paralysis of the external oculomotor nerve (IV) is frequently observed in aneurysmal lesions giving rise to a diplopia in the lateral gaze which can be masked by a saving ptosis. The management of the diplopia is a crucial time in the care, the indications of the treatment vary according to the phase, the visual handicap and the deterioration of the quality of life [4].

In the acute phase of paralysis, an occlusion of the affected eye is often proposed and when the angle of deviation is stable and small (maximum 20 d to 25 d), temporally-based prisms. Botulinum toxin can be used after 3 to 6 months of evolution, the only adverse effect and transient ptosis by diffusion. If diplopia persists beyond one year the forced ductation test will guide the surgical technique [5]. If the paralyzed eye passes the median line, the treatment will be the combination of medial right retraction-lateral resection but if the eye does not pass the median line, we will use the technique of muscle transposition of Hummelsheim type, by displacement of vertical functional rights [6].

In our patient progressive improvement until normalization was the rule, we must know how to wait in this kind of diplopia and manage the social and psychological handicap.

CONCLUSION

If the vital prognosis is involved in aneurisms of the basilar trunk either by direct vascular involvement or even iatrogenic complications, endovascular treatment has for a long time taken a large place in therapeutic management. The role of the ophthalmologist is to manage the visual and oculomotor complications of which diplopia is the leader.

Conflicts of Interest: The authors declare that they have no conflict of interest.

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