

A Decrease In Visual Acuity Revealing A Pituitary Apoplexy

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Abstract — Pituitary apoplexy is caused by an infarction or a hemorrhage in a pituitary adenoma. It is a very serious but rare accident. We present the case of a 28-year-old patient with no specific history who had experienced severe acute headache and a sudden decrease in visual acuity. Clinical examination showed a VA with negative light perception on the right and 1/10 on the left, bilateral aréflexive mydriasis ODG, ocular motility preserved bilaterally, with normal FO in both eyes. An emergency CT scan of the brain reveals a giant intra-sellar pituitary adenoma and a hemorrhagic area in its center evoking a picture of pituitary apoplexy.

Index Terms — Pituitary apoplexy, Visual loss, Ocular motor nerve palsies.

I. INTRODUCTION

Pituitary apoplexy is an infarction or hemorrhage occurring within a pituitary adenoma. It is a rare but serious accident involving acute headaches, confusion, endocrine disturbances and impaired visual function such as chiasmatic syndrome. The seriousness of this condition makes it necessary to diagnose it in order to provide optimal emergency treatment [1].

II. PATIENT AND OBSERVATION

We present the case of a young 28-year-old patient with no specific history who had suffered from severe acute

headache and a sudden decrease in visual acuity justifying her consultation in the ophthalmological emergency. The clinical examination showed visual acuity (VA) with negative light perception (PL) on the right (OD) and 1/10 on the left (OG), bilateral aréflexive mydriasis ODG (Fig. 1), ocular motility preserved bilaterally (Fig. 2), with an eye fundus (FO) normal to both eyes.

The patient underwent a cerebral computed tomography (CT) scan without injection revealing a giant intra-sellar pituitary adenoma with extra-sellar expansion and a hemorrhagic area in its center evoking the diagnosis of pituitary apoplexy (Fig. 3). The endocrine assessment does not reveal any hormonal disturbance.

In front of this table, the patient was urgently admitted to the operating room where she benefited from an adenoma excision by trans-sphenoidal route.

The immediate evolution was marked by the recovery of visual acuity at 07/10 on the left going back to 10/10 after optical correction with disappearance of mydriasis.



Fig. 1. Initial photo showing bilateral aréflexive mydriasis.



Fig. 2. Photo showing the 9 gaze positions, no oculomotor paralysis was detected.

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Fig. 3. CT scan showing pituitary apoplexy.

III. DISCUSSION

Pituitary apoplexy is a rare accident. Only 3% of patients with pituitary adenoma are affected [1]. The age of onset varies between 6 years and 88 years [2].

This condition is a rare occurrence that can most often reveal a previously unknown pituitary adenoma. The most frequent symptomatology is severe and brutal headache while the decrease in visual acuity is only found in 62% of cases [3]. The involvement of the three pairs of cranial oculomotor nerves is then found by tumor compression, of which the third cranial pair is the most frequent [4], [5]. Consciousness disorders can be seen in 38% of cases ranging from drowsiness to coma [6]. As for endocrine disturbances, they are frequent and most often represented by an anterior pituitary insufficiency [7].

The elements of good prognosis are the absence of disturbance of conscience and hormonal disturbances, such as is the case for our patient [7].

Immediate management consists of administering hydrocortisone and immediately performing an MRI without injection which will easily diagnose pituitary apoplexy and eliminate differential diagnoses such as subarachnoid hemorrhage and bacterial meningitis [8], [9].

Early resection of the tumor by the trans-sphenoidal route is the rule of treatment thus conditioning the recovery of visual function [10]. Our case emphasizes that a diagnostic suspicion of pituitary apoplexy as well as early management are the absolute condition for an almost total recovery of visual function.

IV. CONCLUSION

Rare but serious, the diagnosis of pituitary apoplexy must always be kept in mind since the speed of treatment conditions the rapid recovery in particular of visual function.

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