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Anesthesia for Caesarean Section in a Parturient Carrying a Tumor of the Clivus

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I. INTRODUCTION

Chordomes are rare mesenchymal tumours of young adults, developed from the remains of notochord. Chordomes of the clivus are histologically benign tumours, but with local malignancy. They represent 0.1 to 0.2% of intracranial tumours and 40% of spheno-occipital tumours. Chordoma is a rare primary bone tumour, and accounts for 1-4% of malignant bone tumours [1] [2]. It is a low-grade malignant tumour with notochordal differentiation [1]. It has a maximum incidence between 50 and 60 years and a male predominance (sex-ratio of 2-3: 1). The child is rarely affected, with in this case a female predominance [3] [4] It is a locally aggressive, slow-growing tumour. It has high potential for local recurrence and low metastatic potential.

We report the observation of a 32-year-old parturint sixth gesture second, without comorbidity, carrying a chrodome of the evolving clivus. She is admitted in our section for caesarean section of a 39-week pregnancy of amenorrhea plus two days (Ultrasound term). Clinical symptomatology related to his mild disease contrasting with radiological signs. Given the absolute contraindication to propose regional anaesthesia, a general anaesthesia is performed without accidents or incidents and the surgical follow-ups were simple

II. THE OBSERVATION

The patient consulted in 2016 for headaches that had been developing for four years, motivating radiological investigations. A first magnetic resonance imaging that objectified the existence of a lesional process between the middle and posterior stage of the base of the skull in continuity of the clivus and the petous apex. The patient benefited from a biopsy excision with conclusive anatomopathological examination in favor of a tumor type chordome of the clivus. It was decided not to practice radiotherapy because of the proximity of the brain stem process but the oncology team made a proposal to non-existent proton therapy in Algeria. A year later, a second magnetic resonance imaging showed a slight increase in the tumor process in the right part of the skull; a discrete biventricular hydrocephalus, a supratentorial extension with a right cavernous sinus filling. Successive MRI showed an extension of the process in the sellar, parasellar compartment; carotid vascular extension and homolateral inner ear, resulting in double engagement under left right factorial and amygdala (MRI images attached). Evidence of a voluminous tumor occupying expansive extra parenchymal process centered on the clivus in medial and paramedic right infiltrating.

The process presents a T1 hyposignal, a heterogeneous T2 hypersignal, an intense contrast taking. Spectroscopy shows a significant decrease in NAA and Cr peaks, and a significant rise in Cho and Lip peaks with the presence of a lactate peak

During the evolution the patient had a priori unwanted pregnancy. The multiple consultations in oncology and obstetrics the parturiente was refused a therapeutic interruption of her pregnancy for reasons that remain unexplained. The pregnancy reached term, parturient is admitted for delivery with dilation to 4 cm. The general condition of the patient was retained; weight 85 Kg, I MC 34.60, blood pressure 120/70 mm Hg, normal orotracheal intubation criteria and the examination remains were normal. Biological examinations without particularities (Hb 10,5/L; physiological leukocytosis 10,4 109, Platelets 197 109, fibrinogen 2,78g/L. The only clinical signs related to his tumor we find blindness of the left eye; a ptosis of the left eyelid and facial paralysis not very pronounced visible on close examination of the face. Moreover, no sensory deficit or motor deficit is found and the biological reports reveal no major anomalies.

In the preoperative phase, we requested an interpretation and a rereading of the images of the most recent magnetic resonance imaging (images in appendices). The analysis shows a process that takes strong contrast after injection homogeneously (Fig 3-5-6). This process occupies and invades the bone structures with diffuse lysis of the clivus, the body of the sphenoid of the kneaded apex (kneaded pyramid) extended to the rock below. There is an invasion of the right and left cavernous lodges, of the right, left, infrasellar para-sellar regions while pushing back the Turkish saddle forward and above, and an invasion of the right temporal pit. The extension is done downwards towards the cavum, towards the retro pharyngeal greasy spaces. The cisterns are invaded from the medial and right prepontic base of the brainstem; buloprotuberential region and cerebellar parenchyma. The upper extension is next to the V3 occupying the right prethalamic region, and the ventricular system is moderately dilated. There is an invasion and bone lysis of the left basilar process of the occipital bone, the lateral massif of C1 (Fig 1-2-4).

Obstetricians indicated the upper route (caesarean section) and the choice of anesthetic technique was based on the decision to perform perimedullary anesthesia by assessing the benefit/risk ratio. However the neurological pathology being

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evolutionary with radiological signs of engagement, which could make difficult the diagnosis of a possible neurological complication after perimedullary anesthesia, was a contraindication to its realization. A general anaesthesia was performed combining propofol, curarisation with esmeron, sufentanyl corticosteroid IV per and postoperative. The anaesthetic procedure was carried out without incidents or accidents, ensuring the maintenance of normoxia and hemodynamic stability. In the postoperative period, the parturient was placed in a post-interventional care unit until extubation and a complete awakening. The surgical suites were simple while maintaining parenteral corticosteroid therapy.

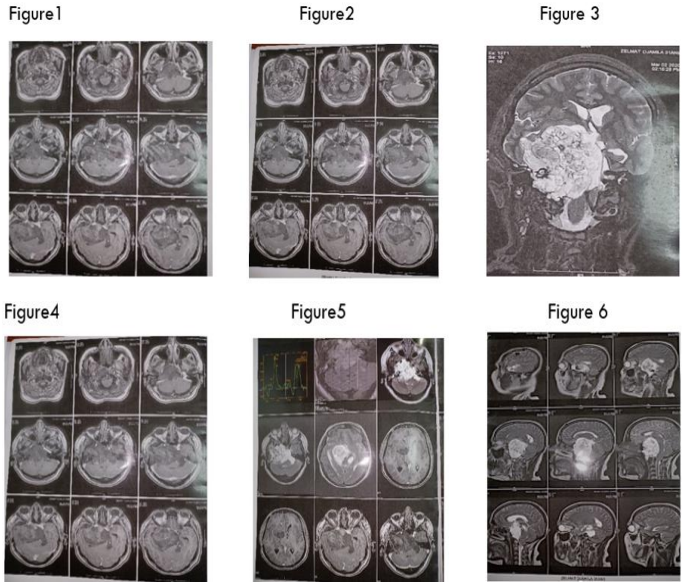

Fig. Magnetic Resonance Imaging Results Showing Height, The Location and Extension Of The Chordom

III. DISCUSSION

The chordomes were first described by Virchow in 1857 as tumors consisting of vacuolated cells or «physaliferous» derived from the remains of the embryonic notochord along the median axis of the central nervous system The symptoms of a clival the chordome depends mainly on the site of the tumor and adjacent structures. Headaches, visual changes and cranial paralysis are the most common symptoms [5], although rare presentations such as CSF rhinorrhea and epistaxis have also been reported [6] [7]. This case report is interesting in many ways. In general, patients with clival chordomes have headaches or paralysis of the cranial nerve. Our patient was hospitalized as an emergency with meningitis, which in turn was secondary to a leakage of CSF caused by erosion of the base of the skull. Complementary treatments such as radiotherapy or systemic treatments are indicated in cases of incomplete excision or palliative management. In preoperative, radiotherapy allows a more precise targeting of the tumor; and in postoperative it allows an improvement of local control especially if the margins of resection are narrow. Hadrontherapy and high-dose protontherapy are used for non-resectable tumours, and are being evaluated.

IV. CONCLUSION

Clival chordomes in pregnant women at term are a rare or even exceptional entity. Our parturient carrying the tumor in engagement, followed anarchically presented with a term pregnancy, for which a high delivery was performed under general anesthesia with not negligible risk of complications per and postoperative.

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