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Case Report

Management of an Intra-Orbital Tumor with Maxillary and Nasal Infection at the Niananankoro Fomba Hospital in Segou: About a Case

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Abstract

The tumor of the orbital region is defined as a progressive and abnormal increase in the volume of the orbit, its contents or as a progressive, abnormal and simultaneous increase in the volume of these two structures, due to an excessive multiplication of tumor cells leading to a exophthalmos. The objective of this work is to study the clinical, paraclinical and therapeutic aspect of this lesion, and to identify the histological type of the tumor. It was Mrs. AD mother of a child, aged 19, with no known medical and surgical history; admitted on September 28, 2022 to the stomatology and maxillofacial surgery department of the Niananankoro Fomba hospital in Ségou for right ocular exophthalmos accompanied by pain and visual disturbance. Surgical treatment consisted of orbital exenteration, avoiding recurrences and postoperative superinfections and restoring the aesthetics of the face. The cytology result of the surgical specimen reveals a moderately differentiated sarcoma. Facial region tumors are lesions that aesthetically affect patients. Their prognosis and therapeutic follow-up after surgery depend on the histological type confirmed by cytological examination of the surgical specimen.

Keywords: Tumor – Exenteration – Cytology.

I.INTRODUCTION

The tumor of the orbital region is defined as a progressive and abnormal increase in the volume of the orbit, its contents or as a progressive, abnormal and simultaneous increase in the volume of these two structures due to the excessive multiplication of tumor cells causing proptosis. This cell multiplication can be done from normal cells which would be the origin of benign tumors or of abnormal cells which would be the origin of malignant tumors.

The diagnosis of these lesions is clinical and paraclinical. The treatment is essentially surgical, associated or not with oncological treatment depending on the histological type of the lesion.

The objective of this work is to study the clinical, paraclinical and therapeutic aspect of this lesion; and to identify the histological type of the tumour.

II. OBSERVATION

It was Mrs. AD mother of a child, aged 19, with no known medical and surgical history; admitted on September 28, 2022 to the stomatology and maxillofacial surgery department of the Nianankoro Fomba hospital in Ségou for right ocular exophthalmos accompanied by pain and visual disturbance (Fig 1).

Physical examination and computed tomography reveal the diagnosis of a right intraorbital tumor. Surgical treatment was the therapeutic option for management and was offered to the parents, but they refused and opted for traditional treatment.

Three months later the evolution would be marked by the exacerbation of the intensity of the pain, the progressive increase in the volume of the tumor accompanied by loss of sight. Given this clinical picture, the parents decide to bring him to the hospital on January 12, 2023 for treatment.

On general examination, the patient was conscious, presenting a poor general condition with pale conjunctivae. She presents signs of dehydration and malnutrition. The clinical constants are unstable.

The exo buccal examination, notes a mass at the level of the right orbital region pushing back the eyeball and deforming the nasal dome. It is painful, renitent, mobile in places under the skin (not part of the bone) and part of the bone in other places. It measures 10 cm in diameter at the major axis. It is covered with skin that looks inflamed and fistulous in places (Fig 2). There is no sensorimotor disorder

Endobuccal examination: she presents a good dental articulation, a normal mouth opening and has free vestibules. She has poor oral hygiene with numerous tartaric deposits, foci of infiltration of the palate and the tongue is coated.

Ophthalmological examination: The fundus of the left eye demonstrates atrophy of the optic nerve. We note the total absence of light perception and the absence of structure in the right eye due to the presence of the tumor; which made fundus examination impossible.

Elsewhere: Review of other devices was unremarkable.

The maxillofacial CT revealed in conclusion that it was an intra orbital tumor with repression of the right eyeball extended to the facial mass and the base of the skull (Fig 3).

Surgical treatment consisted of performing orbital exenteration, avoiding recurrences and postoperative superinfections, restoring the aesthetics of the face.

The patient is under general anesthesia in the supine position with orotracheal intubation, a block under the shoulders, the head is at the zenith. Rigorous exobuccal asepsis with red Betadine then with yellow; placement of a drape (head and body), two electric scalpels (mono and bipolar) and a suction probe (Fig 4).

The skin incision was made with blade No. 15 in the right supra-orbital and left paranasal regions. Hemostasis and progressive subcutaneous dissection enabled us to discover the tumor (Fig 5).

Intra-orbital dissection while progressively ligating vessels such as the internal palpebral, frontal, anterior ethmoidal, muscular, posterior ethmoidal artery revealed the trunk of the optic nerve and the ophthalmic artery.

Excision consisted of ligating the ophthalmic artery then cutting the optic nerve; this allowed us to exenterate the orbit.

It is a lumpy mass of hard and renitent consistency in places, reddish in color and measuring 10 cm in diameter at the major axis (Fig 6).

The closure was made in two planes under drain after verification of complete haemostasis followed by rigorous asepsis of the operative wound with hydrogen peroxide then with yellow betadine. The deep plane was done with Vicryl 3.0 and the cutaneous plane with Ethicon 3.0; the wound dressing was compressive to prevent any serosanguineous collection in the newly formed cavity (Fig 7).

The medical treatment consisted in establishing a protocol of dual antibiotic therapy, corticosteroid therapy, analgesic (level 1 and 2) and rehydration with solutes.

The day after the operation, the patient presented no complaints, the general condition was good, the clinical constants were stable; on exobuccal examination the dressing was clean.

The removal of the drain was done on the third day of the intervention, we note that the operative wound was clean and in good general condition (Fig 8). The evolution ten days after surgery is still favorable without any complications (Fig 9).

The cytology result of the surgical specimen reveals a moderately differentiated sarcoma. The patient was not referred to the oncology department for further treatment because the parents refused to continue the rest of the treatment thinking that it was over despite the insistence of health workers; they returned to the village with the discharge in hand and a continuation of the native treatment. The evolution was marked by the

recurrence of the tumor, sixty days after the surgery (Fig 10).

Fig 1: First contact consultation

Fig 2: Three months after the initial consultation

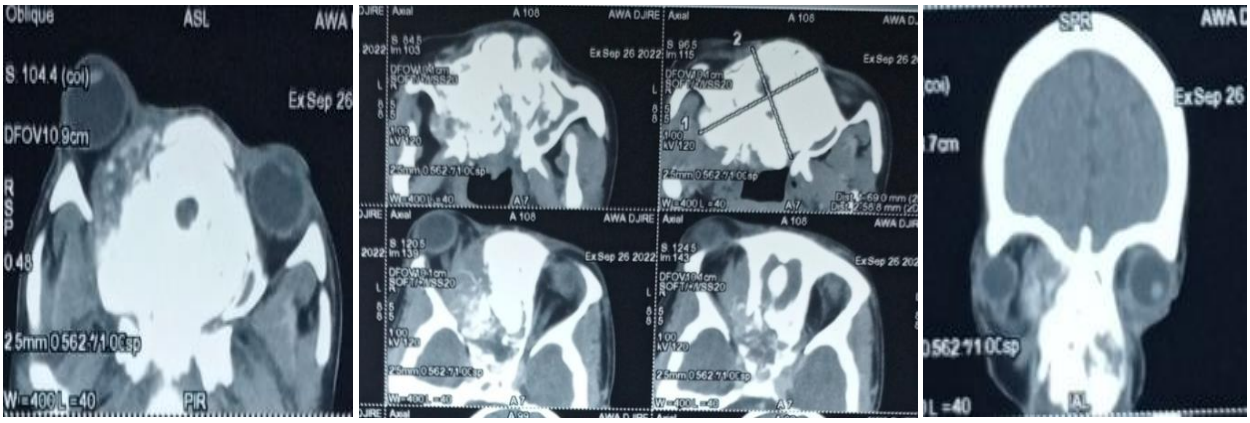

Fig 3: Maxillofacial CT in axial and coronal section

Fig 5: Approach and discovery of the tumor

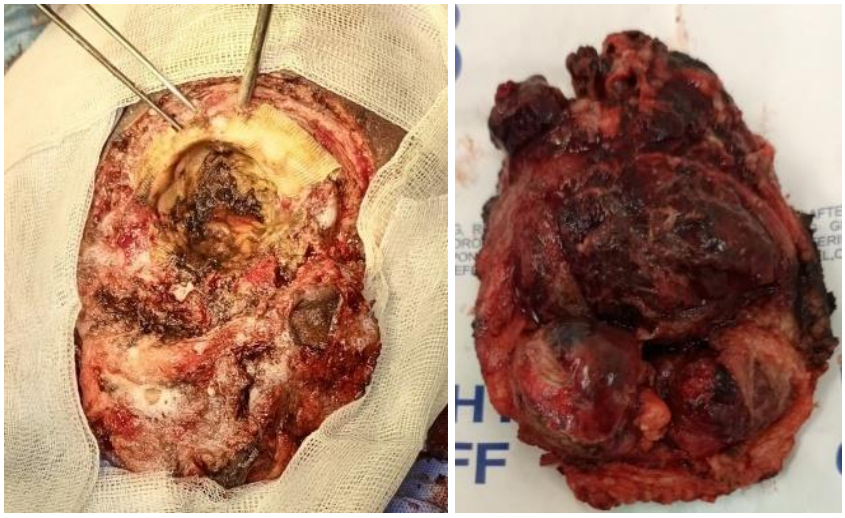

Fig 6: Exenterated orbital cavity and the surgical specimen

Fig 7: Closure of the operative wound under naso-maxillary drain

Fig 8: Removal of the drain on postoperative day 3

Fig 9: D 10 postoperative evolution

Fig 10: Postoperative course at day 60

III. DISCUSSION

The age of our patient is 19 years old, which remains lower than the data in the literature.

Several series also indicate the high prevalence of the young population, the average age was 41.5 years in the SNLCF cohort [5], and 31.78 years in El mostarchid [8].

It was Mrs. AD mother of a child, admitted to the department of stomatology and maxillofacial surgery of the Nianankoro FOMBA hospital in Ségou for orbital tumour.

Some authors report an almost identical distribution of orbital tumors between men and women: Johansen [11] notes a balanced sex ratio of 48% M/52% F and Levecq [15] 48% M/50% F.

In Kaya's series [12] too, orbital tumors affect both sexes equally. The patient consulted at the stomatology and maxillofacial surgery department of the Nianankoro Fomba hospital in Ségou for right ocular proptosis accompanied by pain and visual disturbance; which is consistent with data from several authors.

The clinical symptomatology is dominated by proptosis which constitutes 78.57%, 62.96%, 35.6% of the reasons for consultation in several series: Elmostarchid [8], Belmékki [3] and de Kaya [12].

In our observation, the patient has no known medical and surgical history; this is inconsistent with data from some studies.

In addition, we note in the Elmostarchid series, three patients with a history of cranio-orbital trauma and Recklinghausen's disease is found in one case [8].

Three months later the evolution would be marked by the exacerbation of the intensity of the pain, the progressive increase in the volume of the tumor accompanied by loss of sight.

Orbital pain was present in two of our patients, i.e. 9.52% [18]. The decrease in uni or bilateral visual acuity represents the second clinical sign found in our patients, i.e. 71.43% [18].

The fundus of the left eye demonstrates atrophy of the optic nerve. We note the total absence of light perception and the absence of structure in the right eye due to the presence of the tumor; which made fundus examination impossible.

The ophthalmological examination is important and goes through different stages (measurement of visual acuity, measurement of intraocular pressure, slit lamp examination, fundus examination, exophthalmometry of Hertel, neuro-ophthalmological examination) to make the diagnosis. positive for an ocular lesion [7, 21].

The maxillofacial computed tomography was the paraclinical examination used to make the positive diagnosis of a right intraorbital tumor heard in the facial bone, at the base of the skull with repression of the eyeball; this is consistent with the literature.

The first CT evaluation of the orbit was made by Ambrose and Gawler in 1974 [14, 2] and the first description of the use of CT in the exploration of orbital tumors dates back to 1977 [7].

In our series, 19 patients benefited from an orbital scanner which made it possible to make the positive diagnosis in 47.62% without resorting to MRI [18].

Our patient is operated under general anesthesia in supine position with orotracheal intubation, a block under the shoulders, the head is at the zenith.

The vast majority of orbital surgical operations in adults and all those in children are performed under general anesthesia, which was the case in the patients in our series [18].

Surgical treatment consisted of performing orbital exenteration, avoiding recurrences and postoperative superinfections, restoring the aesthetics of the face.

Exenteration is indicated in extreme circumstances such as invasive malignancies; 90% of orbital exenterations are performed as a last resort in the event of an invasive tumor [19, 20].

The cytology result of the surgical specimen reveals a moderately differentiated sarcoma; that's what we got as a result.

Furthermore, the data from the anatomopathological examination of the surgical specimen included 5 cases of cavernous hemangioma, i.e. 38%, 4 cases of mixed tumor, i.e. 30%, 2 cases of neuroma, i.e. 15%, 1 case of hydatid cyst, i.e. 7% and 1 case of angioma, i.e. 7% [1].

The patient was not referred to the oncology department for further care because the parents refused to continue the rest of the radio or chemotherapy treatment, thinking that it was over despite the insistence of the health care workers. health; they returned to the village with the discharge in hand.

The different teams present two radiotherapy techniques used in malignant orbital tumours: external radiotherapy (x and y rays) and the linear particle accelerator (protons and neutrons) [4, 9, 6, 10, 13].

The indications for chemotherapy in children are: primary malignant tumors (rhabdomyosarcoma, lymphoma, granulocytic sarcoma); tumors secondary to orbital invasion (retinoblastoma, optic nerve glioma, esthesioneuroblastoma); distant metastases

(neuroblastoma, EWING tumour, WILMS tumour) [16].

Indications for chemotherapy in adults are: lymphoproliferative lesions (lymphoma); primary malignant tumors (carcinoma of the lacrimal gland, sarcomas of the orbit and osteosarcomas); secondary malignancies (eyelid tumors "basal and squamous cell carcinoma" and melanoma); distant metastases (primary cancers are those of the breast, prostate, lung and digestive tract) [17].

CONCLUSION

Facial region tumors are lesions that aesthetically affect patients; the management of these lesions is medico-surgical, sometimes mutilating requiring the use of prostheses.

Their prognosis and therapeutic follow-up after surgery depend on the histological type confirmed by cytological examination of the surgical specimen.

Conflict of Interest: None

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