



Case Report

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Cavernous Sinus Thrombosis: Case Report

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Introduction

The cavernous sinus is a component of the venous system located at the base of the skull where the facial veins drain. An infection in the structure of the face can produce cavernous sinus thrombosis, a rare entity, but with high mortality [1,2]. It is estimated that the incidence of cavernous sinus thrombosis may be approximately 0.2 to 1.6 per 100,000 per year globally [3]. This makes it a condition of low clinical presentation that is reflected in a difficult diagnosis. We present a case of rapid progression caused by preseptal cellulitis triggering cavernous sinus thrombosis.

Case Report

An 83-year-old female patient with a history of arterial hypertension under medical treatment with losartan. She went to a tertiary level hospital for clinical symptoms of 9 days of evolution consisting of occasional itching of the face, associated with intense ocular pain predominantly on the left, with eyelid edema that made it impossible to open the eye, and scanty discharge from the left eye. She reported that she went to a medical center where she was evaluated by a general practitioner who ordered treatment with oral antibiotics and trobramycin ophthalmic solution without improvement. Immediate evaluation by the ophthalmology service was ordered. Physical examination revealed eyelid edema, erythema, hyperemia, swelling, heat and secretions in the cul-de-sac. In addition, conjunctival chemosis, clear cornea and preserved visual acuity. There were no findings such as ocular movement restriction or visual acuity alteration. A diagnosis of preseptal cellulitis was made and systemic antibiotic therapy with clindamycin and oxacillin was started, and the patient was hospitalized for follow-up. Relatives later reported that the symptoms began after ingestion of medication which she did not remember the name, so support was requested by the internal medicine service in the context of a possible drug allergy.

A CT scan of the paranasal sinuses showed findings compatible with infectious sinusopathy. Two days after her admission, the pa-

tient presented clinical deterioration, with tachypnea, altered consciousness, right eye with decreased eyelid edema, with slight corneal opacity, chemosis, and in the left eye she presented ecchymosis in the lower eyelid extending to the cheekbone, with laceration of the upper eyelid in the inner can thus, serosanguinous secretion, chemosis and slight corneal opacity. Difficult to evaluate intraocular structures. Paraclinical with

Due to marked neurological deterioration, the patient was admitted to the intensive care unit and the airway was secured due to low Glasgow. Patient with torpid evolution observed in left eye necrotizing fasciitis in eyelids extending to the upper jaw, hemorrhagic chemosis, corneal opacity that prevents visualization of other structures. Admission chart and CT of paranasal sinuses did not explain the clinical picture, so it was decided to request contrasted cerebral angiogram to rule out cavernous sinus thrombosis vs carotid-cavernous fistula and an exhaustive search for other contiguous septic foci was performed and antibiotic therapy was guided. When assessing the simple cerebral cranial CT scan, the neurology service considered a middle cerebral artery trunk infarction and considered the possibility of infiltration of the cavernous sinus, carotid artery and possible septic embolus. Holter, echocardiogram, and carotid Doppler ultrasound were requested in search of other embolic sources. Facial lesions with poor clinical evolution showing ecchymosis and cyanosis in the frontogavelar region, bilateral nasojugal sulcus, bilateral lateral paranasal, bilateral lower eyelids and cheeks. She presented partial epidermolysis on the left cheek and partial necrosis of the right malar region, large eyelid edema, decreased ocular opening due to edema, opaque corneas with ulcerous appearance, so she was evaluated by the plastic surgery service, which also considered probable obstructive origin, causing the necrosis, waiting for limitation of the lesions to perform debridement in the near future if necessary. The patient evolved torpidly and died on the ninth day of in-hospital management, due to soft tissue sepsis and secondary multisystemic failure.



Discussion

Cavernous sinus thrombosis is a dangerous and rare complication of an inflammatory process of the paranasal sinuses, orbit, nose, upper jaw or teeth.

Regarding the thrombosis of the cavernous sinus secondary to an inflammatory and/or infectious process located in the orbit, it is usually caused by a postseptal or orbital cellulitis, pathology that presents with exophthalmos, eyeball pain, conjunctival edema, loss of vision and alteration of cranial nerves II, III, IV or VI. However, our patient presents clinical findings that correspond to preseptal cellulitis, a less severe entity that is rarely complicated by cavernous sinus thrombosis.

In our case, preseptal cellulitis spreads rapidly causing post-septal cellulitis, leading to thrombosis of the cavernous sinus.

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