Clinical Image

Surgical management of craniofacial Langerhans cell histiocytosis

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Description

They can migrate to distant areas, like cornea, central nervous system, etc.[1,2]

Classification of the Langherans cells histiocytosis:

a) High risk multisystemic disease.

b) Low risk multisystemic disease.

c) Single organ and system disease.

Background

The pathology of Langherans cells in children is surveyed in the skull of base.

Clinical case

A 3 years old boy attended in the Oral and maxillofacial service and in the Neurosurgical service, in Montevideo - Uruguay in 2020. He concured with a tumor in the left preauricular region that appeared and disappeared spontaneously, and is sensitive to the position. The patient was biopsied and a diagnosis of, unifocal Langherans cell histiocytosis was reached. He was operated with general anesthesia by 2 surgical teams. A shave of the temporal region was first performed. A hemi coronal flap is made, its dissected by planes and bone plane is reached. There a pathological cavity was found that was curetted until it reached the hard point. It was covered with a semicircular titanium mesh with screws that were fixed to healthy bone. Hemostasis was achieved, wound dressing was performed and closed by planes.

The evolution was favorable and a post operative follow up was carried out until the surgical discharge. The pathological study confirms the diagnosis of previous biopsy of unifocal histiocytosis. The patient is until the moment under treatment with chemotherapy.

Clinical images

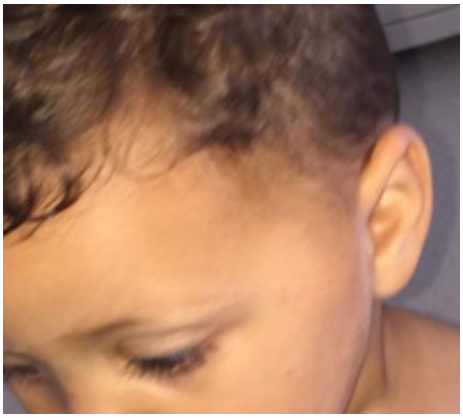

Figure 1 Clinical image of temporal histiocytosis

Swelling is seen in the left temporal fossa

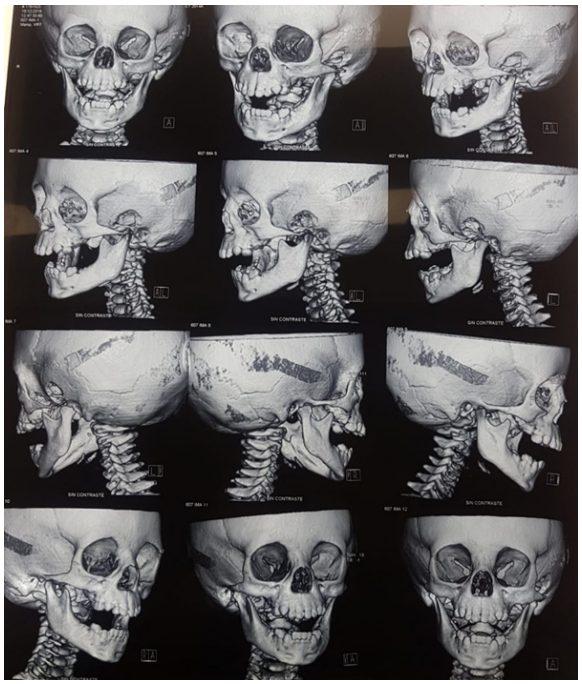

Figure 2 Three-dimensional skull-facial imaging

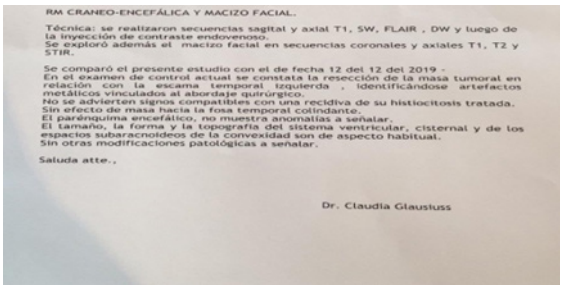

Figure 3 Magnetic Resonance

In the current control examination, the resection of the tumor mass in relation to the temporal squama is verified; identifying metallic artifacts related to the surgical approach, there are no signs consistent with a recurrence of treated histiocytosis.

Figure 4 Preparing the patient, shaving the left temporal región

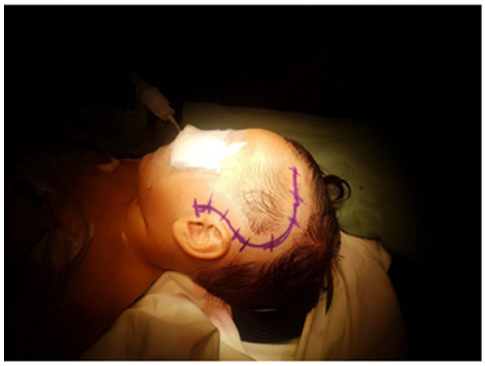

Figure 5 Painting of the incision

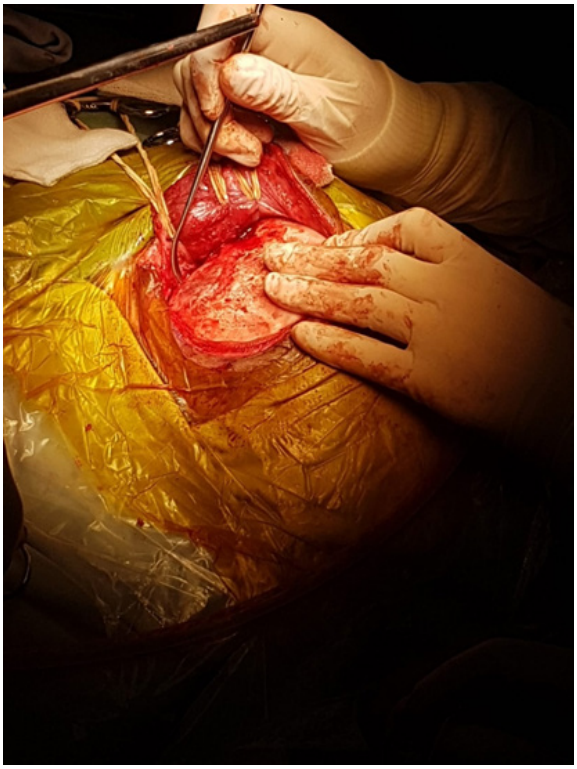

Figure 6 Dissection of the planes

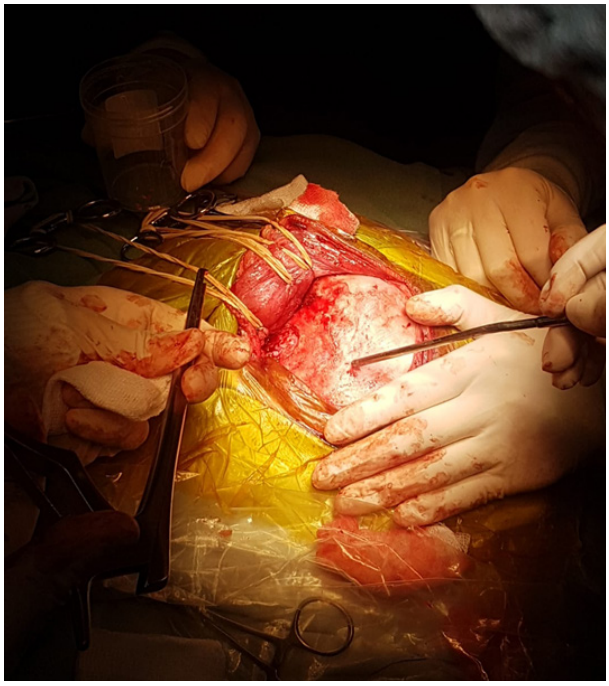

Figure 7 Pathological cavity

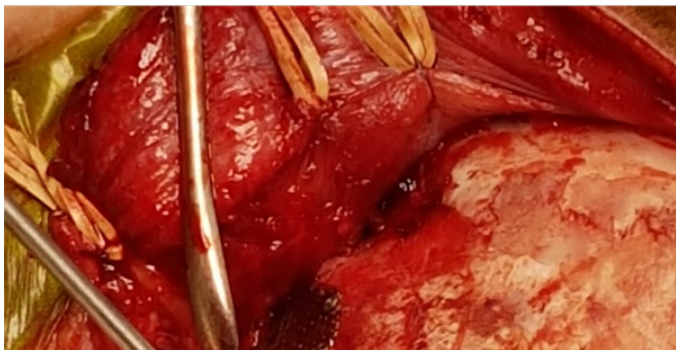

Figure 8 Placement of the titanium mesh in a semicircular shape to protect the hard tissue and give support to the soft tissues

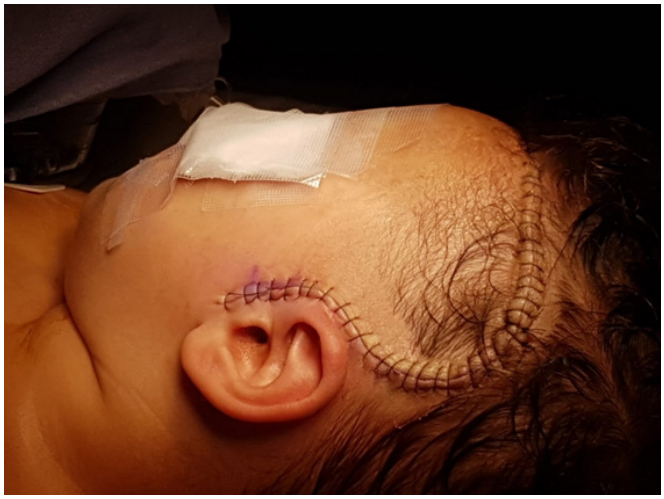

Figure 9 Closure by planes

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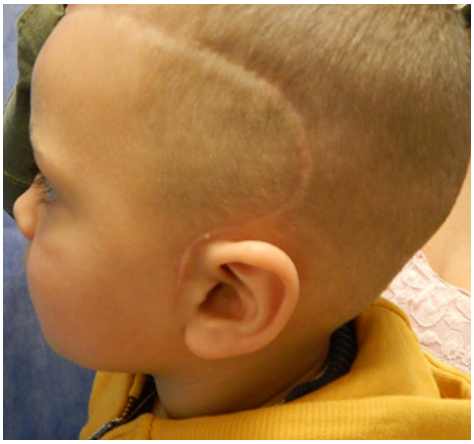
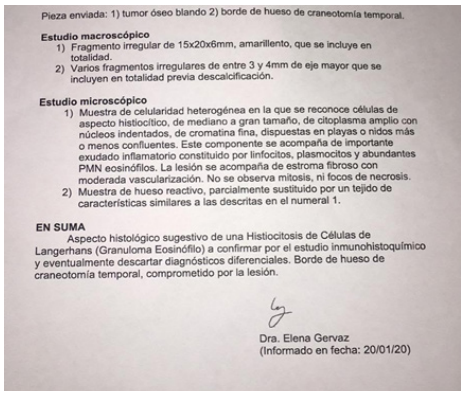


Figure 10 Post-operative clinical controls until discharge



Pieza enviada: 1) tumor óseo blando 2) borde de hueso de craneotomía temporal.

Estudio macroscópico

1) Fragmento irregular de 15x20x6mm, amarillento, que se incluye en totalidad.
2) Varios fragmentos irregulares de entre 3 y 4mm de eje mayor que se incluyen en totalidad previa descalcificación.

Estudio microscópico

1) Muestra de celularidad heterogénea en la que se reconoce células de aspecto histiocítico, de mediano a gran tamaño, de citoplasma amplio con núcleos indentados, de cromatina fina, dispuestas en playas o nidos más o menos confluentes. Este componente se acompaña de importante exudado inflamatorio constituido por linfocitos, plasmocitos y abundantes PMN eosinófilos. La lesión se acompaña de estroma fibroso con moderada vascularización. No se observa mitosis, ni focos de necrosis.
2) Muestra de hueso reactivo, parcialmente sustituido por un tejido de características similares a las descritas en el numeral 1.

EN SUMA

Aspecto histológico sugestivo de una Histiocitosis de Células de Langerhans (Granuloma Eosinófilo) a confirmar por el estudio inmunohistoquímico y eventualmente descartar diagnósticos diferenciales. Borde de hueso de craneotomía temporal, comprometido por la lesión.

Dra. Elena Gervaz
(Informado en fecha: 20/01/20)

Figure 11 Pathological Anatomy

Histological appearance of a Langherahns cell histiocytosis confirmed by immuno histochemical study and eventually ruled out by differential diagnosis. Temporal craniotomy bone edge compromised by the lesion. Histological appearance suggestive of Langherans Cell Histiocytosis, eosinophil granulometry

Figure 12 Post operative magnetic resonance

Diagnosis and the surgical approach

Langherhans cell histiocytosis is a disorder with local or diffuse organ infiltration. It can cause different clinical syndomes.[3] Most cases affect children. Manifestations may include pulmonary infiltates, bone lesions. Rashes, etc. Diagnosis is based in a biopsy, the prognosis goes hand with ion disemination, particulary from the hematopoyetic system , the liver, the spleen or a combination of both. The child evolved favorably from the surgical procedure and entered an oncological chemotherapy until the present moment. There is no evidence of recurrence or persistence of the lesion.

Acknowledgments

None

Conflicts of interest

The author declares no conflicts of interest.

References

1. Gomez AM, Lotero V, Martinez P, et al. Langherans cell histiocytosis in children- Description of 10 cases. *CES Med*. 2013;27(2).
2. Galindo CR, Allen CE. Langherans cell histiocytosis. *Blood*. 2020;135(16):1319–1331.
3. Barbera F, Martinez C. Langerhans cell histiocytosis in children - a disease with many faces. Recent advances in pathogenesis, diagnostic examinations and treatment. *Postepy Dermatol Alergol*. 2018;35(1):6–17.

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