Granular cell tumor

Granular cell tumors (GCTs) can develop in different parts of the body but usually occur in the skin or the subcutaneous soft tissue of the head and neck.

Granular cell tumour of the sellar region

Granular cell tumour of the sellar region

Granular cell tumor of the neurohypophysis

Granular cell tumor of the neurohypophysis

A pineal localization is extremely rare, with only 4 previously reported cases in the literature.

El Asri et al.describe the case of a 16-year-old boy who developed signs of increased intracranial pressure and Parinaud syndrome. Cranial CT and MRI revealed a well-demarcated and enhanced mass in the pineal region accompanied by obstructive hydrocephalus. Subtotal resection was performed via a subtemporal approach. A histological diagnosis of GCA was made. Three years after surgery, the patient was alive and well without adjuvant therapy, and serial MRI showed no signs of progression of a small residual tumor. After a thorough review of the different epidemiological, clinical, and imaging features; treatments; and prognoses of GCAs in other intracranial localizations, the authors analyzed features of this tumor in the pineal region [1)].

Epidemiology

They account for less than 0.1% of all primary brain tumors, and approximately 1-1.5% of adult brain tumors.

In most cases reported to date, GCTs have been found in the posterior pituitary gland. GCT of the neurohypophysis is difficult to diagnose preoperatively, owing to the lack of specific imaging features

Etiology

It is a primary tumor of the neurohypophysis, presumably arising from the pituicytes, a distinctive glial cell of the neurohypophysis. GCTs in most reported cases show biologically benign behavior with slow growth [2)].

Park et al. report a 60-year-old man who presented with intermittent headache and dizziness for 3 months, but no other neurological symptoms. Magnetic resonance imaging (MRI) showed the presence of a mass in the pituitary stalk, and contrast-enhanced MRI showed nodular enhancement in this region. The lesion was completely excised microscopically via a frontotemporal (pterional) approach. On pathological examination, a final diagnosis of a typical GCT was made [3)].

References

1)
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