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CASE REPORT

Dysembryoplastic neuroepithelial tumour—a case report

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KEYWORDS
Dysembryoplastic neuroepithelial tumor;
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Abstract Dysembryoplastic neuroepithelial tumor (DNET) is a mixed glioneuronal tumour which is most commonly seen in the temporal lobe of children and young adults. The patients present with pharmacoresistant complex partial seizures. DNET closely resembles oligodendroglioma clinicopathologically but immunohistochemistry, with positivity of NeuN in neurons and small round cells, aids in the differential diagnosis, which is important as DNET has a better prognosis.

We report a case of DNET in a 16 year old female who presented with complex partial seizures and a mass in the right frontal cortex.

PALABRAS CLAVE
Tumor neuroepitelial disembrioplástico;
Glioneuronal;
Ataques comiciales parciales complejos

Tumor neuroepitelial disembrioplástico. Estudio de un caso

Resumen El tumor neuroepitelial disembrioplástico (TNED) es una neoplasia glioneuronal mixta que ocurre con más frecuencia en el lóbulo temporal de niños y adolescentes. Se manifiesta con ataques comiciales parciales complejos que son resistentes a la terapia farmacológica. Clinicopatológicamente, el TNED es muy parecido al oligodendroglioma. Sin embargo, la inmunohistoquímica muestra positividad a NeuN en neuronas y en pequeñas células redondas, lo cual es útil en el diagnostico diferencial, ya que el pronóstico del TNED es más favorable.

Se presenta un caso de TNED en una adolescente de 16 años con ataques epilépticos parciales complejos y un tumor en la corteza frontal derecha.

Introduction

Dysembryoplastic neuroepithelial tumor (DNET) is a rare, WHO grade I neoplasm of mixed glioneuronal type. DNETs are found in the supratentorial compartment, most commonly

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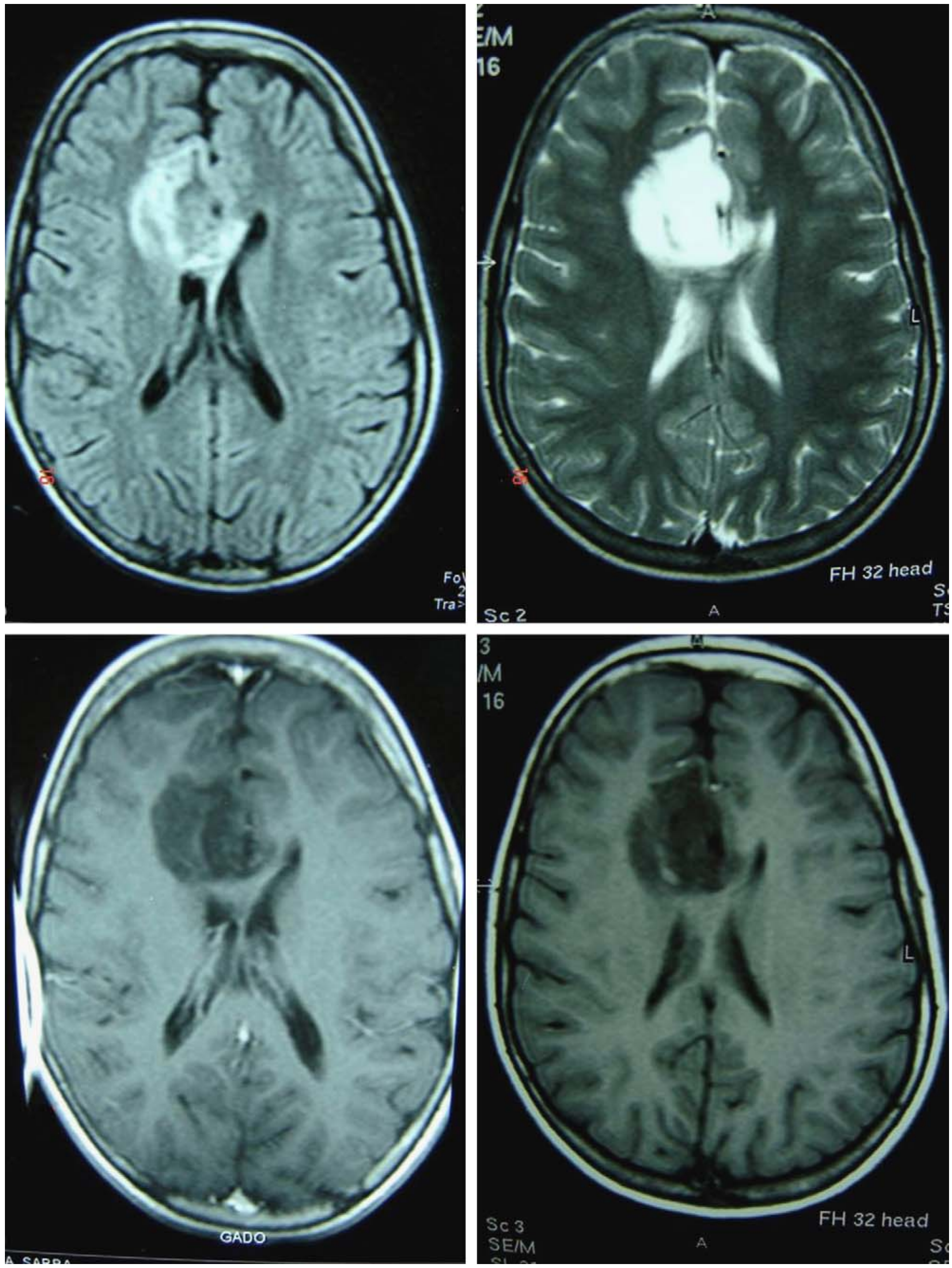

Figure 1 T2, T1, FLAIR and post contrast MR image showing a solid, partly cystic enhancing mass predominantly in right frontal cortex with splaying of frontal horns and invading the corpus callosum and with foci of haemorrhage.

within the temporal lobe, and occur most frequently in children and young adults[1]. Males are affected more often than females. The patients present with pharmacoresistant complex partial seizures unassociated with focal neurological deficits[2]. DNETs are often misdiagnosed as oligodendrogliomas as both are frequently associated with chronic epilepsies and have oligodendroglioma-like cells[3]. Here we emphasize the importance of their differential diagnosis as DNT has much better prognosis.

Case history

A 16 year old female presented with seizures in the casualty department. She had a two year previous history of epilepsy. The CT scan showed a $3 \times 3 \times 2$ cm non enhancing lesion without vasogenic oedema in the left temporal lobe. On MR imaging, the non enhancing mass was low in signal on T1 and high in signal on T2 with a speckled appearance (Figure 1). The mass was located in right frontal region and appeared to reach the midline, involving the corpus callosum. A provisional diagnosis of DNET or glioma was made. The tumour was surgically removed.

Pathological findings

Macroscopically, the tumour had multiple greyish white tissue fragments admixed with mucoid material. Microscopically, it was seen to be composed predominantly of ribbons