Dysembryoplastic neuroepithelial tumor diagnosis

- Co-Occurrence of Dysembryoplastic Neuroepithelial Tumor and Hodgkin Lymphoma in a Patient with Noonan Syndrome and Mutation in the PTPN11 Gene
- Differentiation of multinodular and vacuolating neuronal tumor and dysembryoplastic neuroepithelial tumor based on MRI
- Epilepsy in patients with pediatric brain tumors: Etiology, treatment & management
- Metachronous tumour (DNET and haemorrhagic chiasmal tumour) in a patient with encephalocraniocutaneous syndrome (ECCL)
- The Mickey Mouse's hand sign in brain MRI points out multinodular and vacuolating neuronal tumors in mesial temporal lobe structures
- Atypical Lesions in Virchow-Robin Spaces: A Case Report
- Myxoid glioneuronal tumor of the septum pellucidum in pediatric patients: a case report and comprehensive review of the literature
- A glioneuronal tumor with neurocytic rosettes harboring FGFR1 internal tandem duplication - A report of a unique case

According to Daumas-Duport and colleagues, the criteria for the diagnosis of Dysembryoplastic neuroepithelial tumor should include:

(1) partial seizures, with or without secondary generalization beginning before age 20

(2) no neurological deficit or presence of a stable and likely congenital neurological deficit

(3) cortical topography of the lesion as best demonstrated on MRI

(4) no mass effect on CT or MRI (except if related to a cyst) [1].

Radiographic features

DNETs are typically predominantly cortical and well circumscribed tumours.

CT

if cortical may scallop the inner table of of the skull vault (44-60%), but no erosion the cranial fossa can be minimally enlarged at times calcification in ~30% (more common histologically) low density no enhancement MRI

Typically seen as a cortical lesion with hardly any surrounding vasogenic oedema.

T1

generally hypointense c.f adjacent brain

T1 C+ (Gd)

may show enhancement in ~20-30% of cases, enhancement may be heterogeneous or a mural nodule

T2 generally high signal high signal 'bubbly appearance' FLAIR mixed signal intensity with bright rim

sign partial suppression of some of the “bubbles” FLAIR is helpful in identifying the small peripheral lesions with similar intensity to CSF T2* calcification relatively frequent haemosiderin staining uncommon as bleeding into DNETs is only occasional DWI no restricted diffusion MR spectroscopy non-specific although lactate may be present

1)

Daumas-Duport C, Varlet P, Bacha S, Beuvon F, Cervera-Pierot P, Chodkiewicz JP. Dysembryoplastic neuroepithelial tumor: Nonspecific histological forms:A study of 40 cases. J Neurooncol 1999;41:267-80.