Dysembryoplastic neuroepithelial tumor classification

Two distinct forms (do not appear to have different prognoses):

Simple form: glioneuronal elements consisting of axon bundles perpendicular to the cortical surface, lined with oligodendroglial-like cells that are S-100 positive and GFAP negative. Normal appearing neurons floating in a pale eosinophilic matrix are scattered between these columns (no resemblance to ganglion cells, unlike gangliogliomas).

Complex form: glioneuronal elements as described above in the simple form, with glial nodules scattered throughout. The glial component may mimic a low-grade fibrillary astrocytoma. Foci of cortical dysplasia occur [1].

Molecular studies are needed to better understand the biological nature of GNTs and to refine their classification system [2].

1)
Adada B, Sayed K. Dysembryoplastic neuroepithelial tumors.Contemp Neurosurg.2004; 26:1–5
2)
Chen SY, Wang W, Wang LM, Lin QT, Zhao GG, Xu G, Lu DH, Piao YS. Glioneuronal tumours with features of rosette-forming glioneuronal tumours of the fourth ventricle and dysembryoplastic neuroepithelial tumours: a report of three cases. Histopathology. 2015 Jun 3. doi: 10.1111/his.12750. [Epub ahead of print] PubMed PMID: 26040650.