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Dysembryoplastic Neuroepithelial Tumor

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Synonyms

[DNET](#); [DNT](#)

Definition

The dysembryoplastic neuroepithelial tumor (DNET) is an uncommon tumor characterized by a heterogeneous population of neurons, astrocytes, and oligodendroglia-like cells (OLCs). It arises within the supratentorial cortex and is almost always associated with partial complex seizures. Early surgery is critical to cure or improve tumor associated epilepsy. The DNET presents as a focal lesion, most commonly found in the temporal lobe. It may appear cystic and show one of three characteristics, including a specific glioneuronal element, nodular component, or association with cortical dysplasia. The basic nature of the DNET and its constituent cells, particularly the OLCs, has remained undetermined; and, confusion as to the classification and

differential diagnosis of the lesion, that is, whether DNETs are malformations or neoplasms has existed. However, since DNETs arise from the secondary germinal layer of the developing nervous system and may develop to a sizable mass characterized by an excessive proliferation of cells, they are classified as true neoplasms. MRI features differentiate histologic subtypes and inform optimal resection. The consequences of DNETs are specific to the regions affected. However, since they occur primarily in infants, their effects on cognition are unpredictable, although their clinical symptoms, mainly intractable localization-related seizures, are notable.

Cross-References

- [Brain Tumor](#)
- [Neoplasms](#)
- [Oligoastrocytoma](#)
- [Oligodendroglioma](#)

References and Readings

- Chassoux, F., & Daumas-Duport, C. (2013). Dysembryoplastic neuroepithelial tumors: Where are we now? *Epilepsia*, 54(Suppl. 9), 129–134.
- Kleihues, P., Burger, P. D., & Scheithauer, B. W. (1993). *Histological typing of tumors of the central nervous system* (2nd ed.). New York: Springer.