Teaching NeuroImage: A Rare Pediatric Case of Diffuse Leptomeningeal Glioneuronal Tumor

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A 6-year-old boy, with an unremarkable birth history and developmental history notable only for intellectual disability, developed expressive aphasia and intermittent vomiting in 3 weeks. Brain MRI showed communicating hydrocephalus and characteristic diffuse subpial cystic lesions throughout the surface. His symptom of vomiting was relieved after he was given a ventricular-peritoneal shunt (valve-pressure set as 140mm H$_2$O) and meningeal-cortical biopsy. The final diagnosis was diffuse leptomeningeal glioneuronal tumor (DLGNT), a new entity in the 2016 WHO classification of central nervous system tumors$^1$. He was referred to a local oncology center since chemotherapy had been proposed as first-line treatment$^2$.

**Figure legends:**

Figure. MRI, intraoperative image and histopathology of DLGNT. T2-weighted image showed cystic lesions diffusely scattered throughout the brain surface (A, B), and was confirmed by intraoperative image (C). HE staining (D, ×100) showed leptomeninges (white arrow) infiltrated by oligodendrogia-like tumor cells (black arrow), and were immunopositive for Olig-2 (E, ×400) and synaptophysin (F, ×400).
Reference:

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