

Pt. Name:	حورية أحمد منصر حمادي		Lab Number:	1084-2026	
Pt. Age:	56 years.	Gender:	Female	Received date:	2026-02-15
Referred By:	د/ علي الحوثي		Reported date:	2026-02-17	

PATHOLOGY REPORT

Clinical Information.	Posterior Fossa mass 3x2.5x1 cm, totally embedded.
Nature of specimen.	Excision biopsy.

GROSS:

Soft tissue fragments collectively measured

MICROSCOPIC:

Most of fragments represent normal cerebellar tissue with only three fragments showing a cellular neoplasm characterized by a distinct biphasic, nodular architecture. The tumor tissue displays pale islands of neurocytic differentiation composed of a fine, pink fibrillary matrix (neuropil) and cells with moderate cytoplasm, surrounded by internodular zones of densely packed small cells with hyperchromatic, round-to-oval nuclei and high nuclear-to-cytoplasmic ratios. Significant cytologic heterogeneity, including scattered large ganglion-like cells with vesicular nuclei and prominent nucleoli, as well as focal areas of cells exhibiting cytoplasmic clearing or vacuolization suggestive of lipidization. Additionally, the tumor demonstrates marked angiocentricity with perivascular pseudorosette-like arrangements, where nuclei are radially oriented around blood vessels with an intervening cell-free fibrillary zone.

The differential diagnosis for this posterior fossa mass in a 50-year-old includes Cerebellar Liponeurocytoma (WHO Grade 2), supported by the neurocytic nodules and lipidized cells; Ganglioglioma, given the mix of neoplastic ganglion cells and glial elements; and Ependymoma, due to the prominent perivascular pseudorosettes. To differentiate these, a targeted immunohistochemical panel is essential: Synaptophysin and NeuN to confirm neuronal lineage (positive in liponeurocytoma and ganglion cells), GFAP, Olig2 and IDH1 to highlight reactive gliosis or neoplastic glial components (positive in ganglioglioma and ependymoma), EMA to identify dot-like or ring-like positivity characteristic of ependymoma, and Ki-67 to assess the proliferation index.

DIAGNOSIS:

Posterior Fossa mass, excision biopsy :

- Fragments of cerebellar tissue, focally involved by a cellular neoplasm with nodular architecture and glioneuronal features.
- Recommended for typing by marker study (GFAP, EMA, Synaptophysin, IDH-1, Olig2, NeuN and Ki-67).

Pathologist

Prof. Dr. Neveen Tahoun, MD, PhD
17-02-2026

Nerveen Tahoun