

CASE 2021-3

Submitted by:

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Clinical History:

A 13-month-old term boy presented to the ER-department with a week-history of recurrent vomiting and motor regression. His antenatal history was unremarkable. On clinical examination, the patient was lethargic but no weakness. His pupils were equal and slow to react to light. CT-scan of the head showed obstructive hydrocephalus with marked enlargement of lateral and third ventricles due to a large cystic and focally calcified mass at the pineal region. Brain MRI scan revealed an acute obstructive hydrocephalous secondary to a complex large pineal region tumor. The tumor (57 x 38 x 39 mm) appeared lobulated with heterogeneous contrast-enhancement and focal cystic changes. Routine blood examination, serum alpha-fetoprotein, and beta-human chorionic gonadotropin were within normal limits. An urgent endoscopic third ventriculostomy and tumor biopsy were performed. As the tumor was not amenable to further resection, the decision was made to start 2-cycles of induction chemotherapy. Thus, the patient underwent a second surgery where they achieved a gross total resection.

Material submitted:

1. Two virtual H&E slides (the initial biopsy and the resection)
2. Representative pre-operative MRI images

Points for discussion:

1. The pathologic features and the differential diagnosis
2. Clinical prognosis and the molecular alterations