INTRAOPERATIVE SQUASH SMEAR CYTOLOGY OF CHOROID PLEXUS PAPILLOMA AND ITS CORRELATION WITH HITOPATHOLOGY: A CASE REPORT

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Introduction

choroid plexus papilloma is relatively rare of central nervous system. They occur most often in children, particularly in first decade of life and constitute 3.9% of cerebral tumors in infancy and 2.3% of primary intracranial neoplasm of childhood [1]. Most common site is ventricle of brain.

Case report

A 3 month old male patient presented with the symptoms of recurrent vomiting with two episodes of seizures and radiologically diagnosed as choroid plexus papilloma.

Methodology

We received Intraoperative biopsy tissue as single grayish-white soft tissue piece, measuring 0.8x0.8x0.5cm for squash smear cytology. Tissues squashed between two glass slides and make 2-3 smears by applying optimal pressure. Squash smear prepared and stained with May Grunwald giemsa stain. Remaining tissue processed and stained with hematoxylin and eosin for histopathological examination.

Case result

Squash smear cytology shows papillary strands with fibrovascular cores. Cells exhibits relatively cellular crowding and cytological atypia. Provisional diagnosis was choroid plexus papilloma. Histopathology shows papillary strands with delicate fibrovascular connective tissue fronds are lined by cuboidal to low columnar epithelial cells having round to oval uniformly and basally located nuclei with evenly dispersed chromatin and moderate amount of cytoplasm.

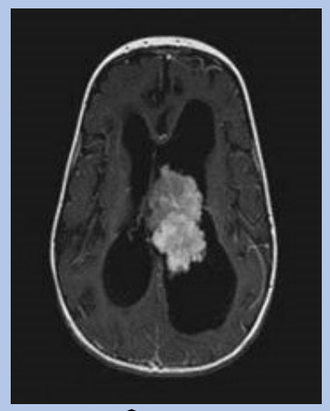

Figure 1: Intraventricular papillary lesion

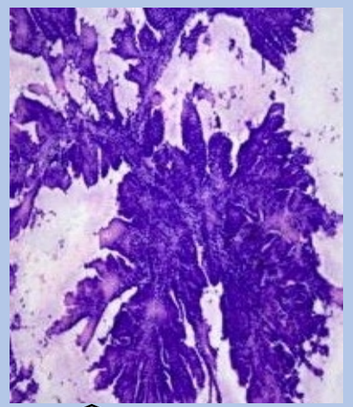

Figure 2: cytology shows papillary strands with fibrovascular cores. Cells exhibits relatively cellular crowding and cytological atypia

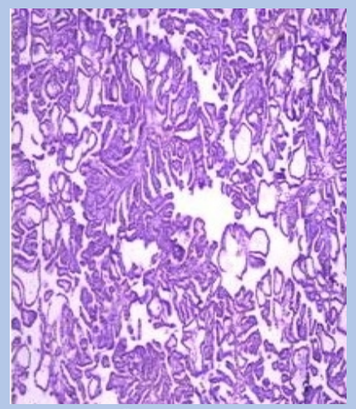

Figure 3: Histopathology shows papillary strands with delicate fibrovascular connective tissue fronds are lined by cuboidal to low columnar epithelial cells having round to oval uniformly and basally located nuclei with evenly dispersed chromatin and moderate amount of cytoplasm.

Discussion

choroid plexus papilloma is relatively rare of central nervous system. They occur most often in children, particularly in first decade of life and constitute 3.9% of cerebral tumors in infancy and 2.3% of primary intracranial neoplasm of childhood [1]. Most common site is ventricle of brain.Relatively higher incidence in infants. Male and female sex ratio is 1.2:1 Histopathology shows papillary strands with delicate fibrovascular connective tissue fronds are lined by cuboidal to low columnar epithelial cells having round to oval uniformly and basally located nuclei with evenly dispersed chromatin and moderate amount of cytoplasm. Choroid plexus papilloma represent a spectrum of neoplasm ranging from well differented papillomas(WHO grade-I)to highly agreesive choroid plexus carcinomas, with rare intermediadte forms refered to as " atypical choroid plexus papilloma" for which the biologic behaviour is still to be defined(2)

Conclusions

The combination of imaging, cytomorphology and histopathological features (gold standard method) of choroid plexus papilloma can helps to differentiate this from other intraventricular tumors.

Referrences

1. Ho DM, Wong TT, Liu HC. Choroid plexus tumors in childhood: histopathologic study and clinicopathological correlation. *Childs Nervous System 1991;7:437-41.*
2. McGirr SJ, Ebersold MJ, Scheithauer BW, Quast LM, Shaw EG. Choroid plxus papilloma: Long-term follow-up results in a surgically treated series. J Neurosurg.1988;69:843-9.