مستشفى الملك فهد التخصصي بالدمام
King Fahad Specialist Hospital - Dammam

Genetic Disorders Associated With Pediatric Brain Tumor In Eastern Province Of Saudi Arabia

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Objective:

This study to review all pediatrics CNS tumors either primary or secondary metastatic cases in the Eastern Province of Saudi Arabia and its associated genetic abnormalities over the last 10 year .

Methods:

A retrospective study for all pediatrics CNS tumors from Jan 2008 till Dec 2018. Age, gender and histopathology of the tumors are reviewed either primary or secondary as well as the genetic associated if present at the time of diagnosis.

Results:

By collecting data of all pediatrics neurosurgical brain tumors cases in our hospital
(King Fahad Specialist Hospital – Dammam) which is the tertiary care referral center in the eastern province of Saudi Arabia, we collect 141 cases with age range from 8 months up to 15 years at the time of diagnosis .Among those cases 81 were Male (75.44%) and 60 were Female (42.56%).

The majority of cases were primary CNS pathology about 118(84%) and the most common pathology was Medulloblastoma which is about (18.6%) followed by Pilocytic astrocytoma (15.25%) then Ependymoma which is about (11.01%).

The remaining 23 (16%) cases were metastatic or local extension from non CNS pathology mainly Sarcomas (47.82%) then Aneurysmal Bone cyst (8.7%).
Genetic review for these cases show 13 cases (9.21%) with genetic abnormalities like NF1 = 11 (84.6%) cases and TS =2 cases (15.4%).

Conclusion:

In our review of oncology center CNS tumor cases show many patent who detected with genetic problems associated with neuro-axis tumors which is suspected in well know disease and need such special care and multi - disciplinary management.