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Cerebellar Medulloblastoma in a 60 Years Old Male- A Case Report

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Abstract:

Medulloblastoma is a tumour of neuroepithelial origin. Although Medulloblastoma is the most common central nervous system malignancy in children, cases are much less common in adults. Moreover, in adulthood 80 % of the Medulloblastoma arise in the 21-40 age groups. During intraoperative consultation, the pathologist should consider Medulloblastoma in the differential diagnosis of a cerebellar mass in the elderly because cytological features may overlap with metastatic small cell carcinoma or lymphoma. We present a case of Medulloblastoma in a 60-year-old man and review the literature on the subject.

Case report: Here is a case of 60 years old man who presented to our hospital with complains of pain over the scalp, occasional vomiting, giddiness, headache and weakness over a period of four months. Magnetic resonance imaging findings revealed a lesion measuring 4.2 X 3.6 X 2.5 cm in the right cerebellar region in the posterior paramedian region resulting in effacement of the underlying 4th ventricle. Features were suggestive of a high grade lesion/ glioma/ metastatic lesion. Oncologic staging for systemic tumours were negative.

Conclusion: Medulloblastoma is a rare cerebellar malignancy in elderly and tend to occur more so in a lateral position. One should always consider systemic tumours in the differential diagnosis in a cerebellar lesion.

INTRODUCTION

Cerebelloblastoma is the most common CNS malignancy in children. And accounts less than 1% of brain tumor in adults. Exceedingly rare in patients older than 60 years. Consider Medulloblastoma in the differential diagnosis .

CASE REPORT

A 60 years old man who presented to the clinician of M.Y hospital Indore with complains of pain over the scalp, occasional vomiting, giddiness, headache and weakness over a period of four months .He denied use of any medication.Systemic examination revealed no organomegaly or lymphadenopathy. Complete blood examination revealed leukocytosis (with neutrophilic predominance) and elevated erythrocyte sedimentation rate (44mm/ at the end of one hour) ..

MRI Findings: revealed a lesion measuring 4.2 X 3.6 X 2.5 cm in the right cerebellar region. with effacement of the underlying 4th ventricle. The lesion was homogenously hyperintense on T2 and hypointense on T1.No calcification was seen.Features suggested a high grade lesion/ glioma/ metastatic lesion. Oncologic staging for systemic tumours were negative

Microscopic examination - Revealed small round tumour cells with hyperchromatic nuclei and scanty cytoplasm leading to moulding of cells. At places the tumours cells were forming perivascular pseudorosettes

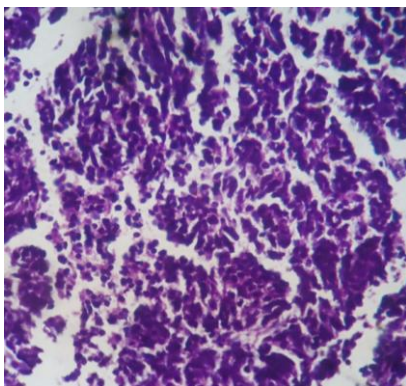


Fig (a) Microscopic picture showing small round cells having hyperchromatic nuclei and scanty cytoplasm

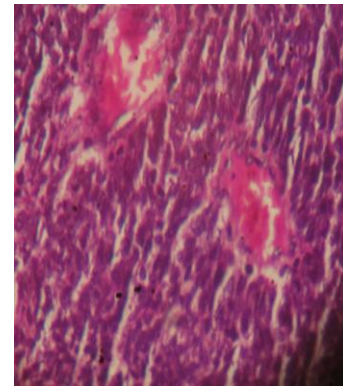


Fig (b) Microscopic picture showing perivascular pseudorosettes.

Immunohistochemistry

immunohistochemistry was done which should positivity for Synaptophysin., Nestin. and Retinal S Antigen

DISCUSSION

Medulloblastoma is a malignant invasive embryonal tumour of cerebellum. and arises from nests of germinal cells. It is a highly aggressive tumour.and corresponds to WHO grade IV. Laterality of the tumour increases with age. Seeding via CSF pathways is common Clinical manifestation mainly are truncal ataxia, disturbed gait, headache, morning vomiting, lethargy and photophobia.

The variants of medulloblastoma includes

- ✓ Classic variant :which microscopically shows densely packed round to oval cells ,densely hyperchromatic nuclei and scanty cytoplasm with occasional rosettes.
- ✓ Desmoplastic variant : which microscopically shows Nodular, reticulin free zones Surrounded by densely packed proliferative cells The nodules have reduced cellularity
- ✓ Medulloblastoma with extensive nodularity.
- ✓ Large cell medulloblastoma.
- ✓ Medulloblastoma.
- ✓ Melanotic medulloblastoma

MRI findings in both adults and children differ.Majority of cerebellar tumours are metastasis. (Rosenblum et al 2000) Few case reports for those over 45 years (Salvati and Cervoni 2000 ,Sarkar et al 2002, Malheiros et al 2002) Literature survey revealed few cases. 9

patients were over 65 years in a study conducted by Salvati and Cervoni 2000.

CONCLUSION

Medulloblastoma is a rare cerebellar malignancy in elderly and tend to occur more so in a lateral position. One should always consider systemic tumours in the differential diagnosis in a cerebellar lesion. Our patient was an elderly man and was diagnosed with medulloblastoma a rare tumour in this age group. The diagnosis was proved both by histology and immunohistochemistry. Moreover the oncological staging for systemic tumours were negative which excluded any secondaries.

REFERENCES

1. Bloom HJG, Wallace MB, Henk JM: The treatment and prognosis of medulloblastoma in children: a study of 82 verified cases. *Am J Roentgenol Rad Ther Nucl Med* 105:43–62, 1969.
2. Salvati and Cervoni 2000 ,Sarkar et al 2002, Malheiros et al 2002) medulloblastoma in late adults . Case reports and critical review of literature *J. Neurosurg Sci.*44 23-232
3. Sarkar et al 2002, Are childhood and adult medulloblastoma different? A comparative study of clinicopathological features proliferation index and apoptotic index *J Neurooncol* **59** 49-61
4. Berman DM, Karhadkar SS, Hallahan AR, et al: Medulloblastoma growth inhibition by hedgehog pathway blockade. *Science*, 297:1559–1561, 2002.
5. Bourgouin PM, Tampieri D, Grahovac SZ, et al: CT and MR imaging findings in adults with cerebellar medulloblastoma: comparison with findings in children. *Am J Radiol* 159:609–612, 1992.
6. Burger PC, Scheithauer BW, Vogel FS: *Surgical Pathology of the Nervous System and Its Coverings*. New York, Churchill Livingstone, 2002.
7. Carrie C, Lasset C, Alapetite C, et al: Multivariate analysis of prognostic factors in adult patients with medulloblastoma. *Cancer* 74:2352–2360, 1994.