

Unusual Presentation of Medulloblastoma: Case Report

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Abstract: Medulloblastoma is the most common brain tumor in children, accounting for 15 to 30 percent of all pediatric cancers of the central nervous system (CNS). The most commonly reported symptoms of medulloblastoma at initial diagnosis are associated with increased intracranial pressure and cerebellar dysfunction. Other clinical features are headache (80%), nausea and vomiting (78%), and ataxia (73%) were most commonly identified. We report rare case of 1 yr 4 months old male child presented with generalized tonic clonic seizures with neuroregression.

Keywords: Medulloblastoma, intracranial pressure, brain tumor

INTRODUCTION

Medulloblastoma was first described by Bailey and Cushing. Medulloblastoma is a primitive neuroectodermal tumor that is the most frequent primary brain neoplasm in childhood. About 50% of these tumors occur in children aged less than five years, whereas they are rare in adolescents and young adults. At present, children with medulloblastoma are divided into two disease groups: Average risk patients are the ones who are older than the age of three years with non-metastatic and totally or nearly totally excised tumor on postoperative MRI. Medulloblastoma behaves differently in adults than in children, and is identified as a different biological and clinical entity [1]. The first step is surgical excision carried out as completely as possible without resulting in major neurological impairment. The second step is radiotherapy.

CASE REPORT

Male child of 1.4 years was admitted with history of convulsions, slight disorientation, intermittent vomiting, irritable personality and somewhat large head for the last one week. There was history of fever. No history of trauma, signs of meningeal irritation or weight loss. Child had history of neurodevelopment regression. Laboratory investigation revealed hemoglobin of 10.6gm/dl. Computed Tomography showed - posterior fossa tumor arising from the lateral ventricle. After the clinical and radiological diagnosis of intracranial tumor, surgical intervention was planned.

DISCUSSION

The significant feature of the case under view was the occurrence of a medulloblastoma in the posterior fossa of a boy of 1.4 years age. Medulloblastoma is a rare tumor of infants. It is uncommon under the age of three years [2]. Central nervous system malignancies comprised 13% of infant cancer with an average annual incidence rate of nearly thirty per million infants. Out of these, medulloblastoma accounts for five per million infants. There is around a two-fold higher average annual incidence in males than in females. The peak incidence in children is between five and ten years of age group [3]. Patients with medulloblastoma present with a combination of signs and symptoms of increased intracranial pressure and cerebellar dysfunction evolving over a period of weeks to a few months. In our case child had acute onset of clinical manifestations over one week. Current therapy for this disease includes maximum surgical resection, whole neuraxis radiation and chemotherapy. The prognosis of medulloblastoma in children under three years of age is poor, because of



Fig. 1: Computed Tomography showed - posterior fossa tumor arising from the lateral ventricle

the high morbidity of radiotherapy in children under three years old. Despite this aggressive treatment, only 60% of children with medulloblastoma will be cured and most of these will suffer long-term side effects. One study shows that children who survive medulloblastoma suffer a loss of normal-appearing white matter, an associated decline in intellectual function and long term endocrine deficiencies[4]. Our case treated with surgical resection and radiotherapy.

CONCLUSION

This case report highlights the importance of clinical suspicion, such as a trivial but unusual presentation. A brain CT scan should be done to rule out any possibility of an organic lesion. Close monitor is required in order to catch and treat medulloblastoma early.

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