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Letter to Editor

Histopathological study of primary pediatric brain tumor from 1993 to 2003 in Isfahan

P. Mahzuni*, N. Afshar Moghaddam**

To the Editor

We would like to point out that the variety of histopathological patterns that observed in pediatric brain tumors are not likely to occur in adults, and contrary to adults, infratentorial area is the most common site of involvement among pediatric brain tumors ^{1,2}.

In our experience, we evaluated 398 patients with primary brain tumors.

The tumor location was determined by cranial computed tomography and/or magnetic resonance imaging, defining tumors located above the tentorium cerebelli (supratentorial) or below it (infratentorial).

The histopathological evaluation of these lesions was performed on H δ E stained sections of paraffin embedded tissues, using world Health Organization (WHO) classification ³.

The male to female ratio was 1.2. Low grade astrocytomas were the most common (35.7%)

intracranial neoplasms. Medulloblastoma (22.36%) ranked the second most common brain tumor followed by ependymoma (10.8%) and craniopharyngioma (9.5%).

Out of 398 cases, 297 (74.62%) were infratentorial and 101 (25.37%) supratentorial in location.

The majority of infratentorial tumors were low grade astrocytomas (47.8%) and medulloblastomas (29.96%). In supratentorial region, the most common tumors were anaplastic astrocytoma or glioblastoma multiform (52.47%) and craniopharyngiomas (37.62%).

Regarding the findings of this study, it can be concluded that pediatric brain tumors are more common in infratentorial region and astrocytoma is the most common type. Supratentorial astrocytoma is more likely to be high grade than infratentorial one ⁴.

References

- 1. Rickert CH, Paulus W. Epidemiology of central nervous system tumors in childhood and adolescence based on the new WHO classification. *Childs Nerv Syst* 2001; 17(9):503-511.
- Reith W, Grunwald I, Reinhard H, Graf N. [Supratentorial tumors in childhood]. Radiologe 2003; 43(11):986-996.
- 3. Rosenblum MK, Bilbao JM, Ang LC. Neuromuscular system. In: Rosai J, editor. Rosai and Ackerman's surgical pathology. Edinburgh-London: Mosby, 2004: 2504-2507.
- 4. Hanif G, Shafqat S. Morphological pattern and frequency of intracranial tumours in children. *J Coll Physicians Surg Pak* 2004; 14(3):150-152.

^{*}Associate Professor, Department of Pathology, Faculty of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran.

^{**}Assistant Professor, Department of Pathology, Faculty of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran. Correspondence to: Dr Parvin Mahzuni, Department of pathology, Alzahra Hospital, Alzahra Hospital, Hakimnezami Street, Isfahan, Iran. e-mail: mahzouni@med.mui.ac.ir