Crimson Publishers
Wings to the Research

Mini Review

Third Ventricle's Chordoid Gliomas

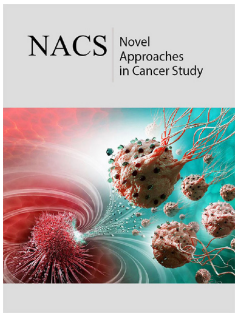
Behzad Saberi*

Medical Research, Iran

Abstract

Chordoid gliomas are low grade tumors which are most commonly seen in women and in the adult population. Clinical signs and symptoms of these tumors are mostly related to hydrocephalus which is obstructive in nature. Headache, nausea, visual disturbances, imbalances in the endocrine system and autonomic dysfunction can be seen in these tumors. MRI with contrast is the best diagnostic imaging method for such tumors. The best treatment method for such tumors would be complete surgical resection. In case of incomplete resection, the prognosis can be poorer in comparison with complete surgical resection.

ISSN: 2637-773X



***Corresponding author:** Behzad Saberi, Medical Research, Esfahan, Iran

Submission: December 04, 2019
Published: Janauary 13, 2020

Volume 4 - Issue 1

How to cite this article: Behzad S. Third Ventricle's Chordoid Gliomas. Nov Appro in Can Study. 4(1). NACS.000579.2020. DOI: 10.31031/NACS.2020.04.000579

Mini Review

This is a brief review on the Third Ventricle's Chordoid Gliomas and their pathogenesis. Chordoid gliomas of the third ventricle are histologically characterized by chordoma-like features. These rare tumors can be seen mostly in the adult patients group specifically in the women population. These solid tumors are well-circumscribed which are adhered to the wall of the third ventricle [1]. Their location is in the anterior part of the third ventricle. These glioma tumors may be extended to reach the suprasellar region. Also, they may cause a hydrocephalus which is obstructive in nature. Regarding differential diagnosis for chordoid glioma, chordoid meningioma and chordoma should be of notice [2].

Chordomas contain physaliphorous cells. They also stain positive for cytokeratins. CD34 and lack of immunoreactivity for Glial fibrillary acidic protein, can also be seen in these tumors. These findings differentiate chordomas from gliomas [3]. Chordoid meningiomas show some meningeal features like psammoma bodies and whorl formation. Also, cordoid meningiomas are negative for CD34 and Glial fibrillary acidic protein and positive for Epithelial membrane antigen [4]. These characteristics differentiate chordoid meningiomas from chordoid gliomas. Chordoid gliomas are different from common glioma and meningioma types. They do not have chromosal imbalances. Also, there are not any CDK4, TP53, EGFR, MDM2 and CDKN2A genetic alterations in chordoid gliomas [5].

Positivity for vimentin, CD34 and Glial fibrillary acidic protein can also be seen in the chordoid glioma tumors. Different expressions of cytokeratines, S-100 and Epithelial membrane antigen can be seen in chordoid gliomas. Lack of P53 nuclear accumulation can be seen in such tumors either. The MIB1 index is less than five percent and the synaptophysin is negative in the immunohistochemical profile of the chordoid gliomas [6]. The lymphoplasmacellular infiltrations, are regular features of chordoid gliomas. There is no sign of anaplasia and there is a low amount of mitotic activity in such tumors. Reactive astrogliosis usually with Rosenthal fibers can be seen in these tumors which are demarcated from the brain tissue around them [7].

References

1. Tonami H, Kamehiro M, Oguchi M, Higashi K, Yamamoto I, et al. (2000) Chordoid glioma of the third ventricle: CT and MR findings. J Comput Assist Tomogr 24(2): 336-338.
2. Desouza RM, Bodi I, Thomas N, Marsh H, Crocker M (2010) Chordoid glioma: Ten years of a low-grade tumor with high morbidity. Skull Base 20(2):125-138.
3. Ni HC, Piao YS, Lu DH, Fu YJ, Ma XL, et al. (2013) Chordoid glioma of the third ventricle: Four cases including one case with papillary features. Neuropathology 33(2):134-139.
4. Jung TY, Jung S (2006) Third ventricular chordoid glioma with unusual aggressive behavior. Neurol Med Chir (Tokyo) 46(12): 605-608.

5. Nakajima M, Nakasu S, Hatsuda N, Takeichi Y, Watanabe K, et al. (2003) Third ventricular chordoid glioma: Case report and review of the literature. Surg Neurol 59(5): 424-428.

6. Brat DJ, Scheithauer BW, Staugaitis SM, Cortez SC, Brecher K, et al. (1998) Third ventricular chordoid glioma: A distinct clinicopathologic entity. J Neuropathol Exp Neurol 57(3): 283-290.

7. Kobayashi T, Tsugawa T, Hashizume C, Arita N, Hatano H, et al. (2013) Therapeutic approach to chordoid glioma of the third ventricle. Neurol Med Chir (Tokyo) 53(4): 249-255.