عنوان مقاله:

An Immunohistochemical Study of Cyclin D1 Expression in Astrocytic Tumors and its Correlation with Tumor Grade

محل انتشار:

فصلنامه آسیب شناسی ایران, دوره 14, شماره 3 (سال: 1398)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Background & Objective: Glioblastoma-multiforme is the high grade form of astrocytic tumors with a short survival time, which are the most common type of brain tumors. Therefore, finding new therapeutic options is essential. Cyclin D1 is expressed in some human malignancies and can be a potential target for therapeutic intervention. The aim of the present study was to determine this relationship. Methods: This is a cross-sectional study conducted in the pathology department of Al-Zahra Hospital in Isfahan, Iran. In this study, 100 samples diagnosed with astrocytic tumors between 2011 and 2015 that met the study's requirements were studied and immunohistochemical staining for cyclin D1 was performed for each specimen. At the end, the relationship between the expression of cyclin D1 and various variables including tumor grades, tumor subtypes and patient demographic features were examined using appropriate statistical tests. Results: Of the 100 samples, cyclin D1 was positive in 60 samples and negative in 40 samples. Moreover, in 26 samples, the amount of the marker was low, while in 34 samples it was high. Following the results of the study, there was a significant difference (P =0.038) in the expression of the cyclin D1 marker among the four different grades of astrocytic tumors. Conclusion: The results showed that the expression of cyclin D1 was associated with different tumor grades, especially the high level of expression in grade 4, and the amount of cyclin D1 increased as the level of grade glioma increased.

کلمات کلیدی:

Glioblastoma, Immunohistochemistry, Cyclin D1, Neoplasm grading