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Thesis Title	**Expression of ki67 and P53 Immunohistochemical Markers in Central Nervous System Astrocytoma**			
Year	**2014**			
Abstract	**Astrocytomas are the most common primary central nervous system neoplasms in which the predominant cell type is derived from an astrocyte. Ki-67 and p53 are two cellular proteins that have a role in the pathogenesis and malignant progression of astrocytoma.** **Ki-67 is an antigen that corresponds to a nuclear non histone protein, expressed by all cells in the proliferative phases (G_1, S, G_2, and M phase) but is absent from resting cells (G0). P53 gene produces a protein product that functions as a transcription factor, regulates cell cycle to control cell division and viability, and hence functions as a tumor suppressor gene. Both biomarkers were approved to be of prognostic value.** **Aims of the study:** **1- Evaluation of p53 over expression in astrocytomas.** **2- Evaluation of Ki-67 expression in astrocytomas.** **3- Correlation of these 2 markers with histologic grade of astrocytomas.** **Materials and Methods:** **Forty patients with astrocytoma were included in this study and cases were collected from the neurosurgical hospital in Baghdad during the period from January 2006 to October 2013.Their ages ranging between 1.5-72 years with a mean age of 31.55 years. Gender distribution showed slight male predominance 23 (57.5%) cases compared with female 17(42.5%) cases, the male to female ratio was 1.3:1.** **Dako-LSAB method was used for the immunohistochemical detection of P53 and Ki-67.** **Results:**			

	P53 was detected in (25%) of the cases and was significantly positively correlated with grade IV. **Ki-67 labeling index was (>5%) in (50%) of the cases.** **Both biomarkers were positively correlated with each other, and the grade of astrocytoma; however, Ki-67 is a better marker for differentiating (diagnostic marker) between the grades of astrocytoma than p53.** **Conclusions:** **P53 overexpression and Ki-67 expression play an important role in pathogenesis of astrocytoma evolution, as they positively associated with higher tumor grade.**