



The Correlation of KI-67 Labeling Index With WHO Histopathological Grading in Intracranial Astrocytoma Patients at Haji Adam Malik Hospital Medan

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Abstract:Introduction. Ki-67 is an excellence marker to determine the cell proliferation and it can be very helpful when there is a discrepancy between clinical parameters and histopathological result. In Indonesia, no previously study correlating the Ki-67 labeling index and WHO astrocytoma histopathological grade has done.

Aims. To determine the correlation of cell proliferation by using the Ki-67 and the WHO classification for intracranial astrocytoma.

Method. This study was conducted using an analytic cross sectional study and sample was taken using total sampling technique, all specimens from astrocytoma patients whom undergo tumor removal from January 2014 – June 2015. All astrocytoma paraffin specimens which has stained using hematoxyline-eosine and confirmed as an astrocytoma was collected and patients data was recorded. Ki-67 staining was done to all specimens. The percentage of staining tumor cell nucleus was count. To examine the correlation of cell proliferation by using the Ki-67 then the data analyzed using the *Chi-square* statistical test. P value $\leq 0,005$ considered to be a significant correlation. While p value $> 0,05$ considered to be a not significant correlation.

Result. There were no significant correlation of Ki-67 presentation and intracranial astrocytoma classification, ($p = 0,076$).

Conclusion. The insignificant result incongruent with the previously studies which conclude that there was a significant correlation of Ki-67 and astrocytoma classification. The insignificant result maybe because the data doesn't distributed normally.