



Microvascular density in WHO-based histological grading of meningioma

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Abstract:Introduction- Studies about the difference of microvascular density in each grade of meningioma showed conflicting results. Moreover, in Indonesia, there was no study that determine this association.

Objective- To determine the difference of MVD in WHO-based histologicalgrading of meningioma.

Methods- This analytical study was conducted on 33 intracranial meningiomassubjects undergoing surgery at RSUP H. Adam Malik in January 2015-June 2016. The meningioma paraffin block specimens were immunohistochemically processed using the antibody monoclonal PECAM-1 mouse reagent to assess CD31 in the quantification of MVD. The grade of meningioma was determined by WHO classification. Data were collected and analyzed with SPSS 19.

Results-In 33 paraffin blocks, mostly most meningioma were grade 1 (87.9%), followed by grade 2 (9.1%) and grade 3 (3%). Mean of MVD in grade 1 meningioma was 16.30 ± 9.65 while in grade 2 and 3 meningioma was 14.20 ± 5.11 . Using Mann Whitney, this study showed that there was no difference of microvascular density between grade 1 and grade 2/3 of intracranial meningioma ($p=0.869$).

Conclusion-There was no difference of microvascular density in each histological grade of meningioma. Further research with larger samples and various markers is needed.

Keywords:Microvascular density, CD31, Meningioma.