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Expression of Caspase-9 as Diagnostic Value of Undifferentiated Nasopharyngeal Carcinoma (Type 3) Stage IV

Made Setiamika[1]*, Edi Widjajanto[2], Pudji Rahayu[3], Aris Widodo[4]

[1]Faculty of Medicine, Sebelas Maret University, Surakarta, Central Java, Indonesia
[2]Department of Clinical Pathology, Faculty of Medicine, Brawijaya University, Malang, East Java, Indonesia
[3]Department of Otolaryngology, Faculty of Medicine, Brawijaya University, Malang, East Java, Indonesia
[4]Department of Cilinical Pharmacology, Faculty of Medicine, Brawijaya University, East Java, Indonesia

Abstract : Apoptosis is regulated by caspase-9 as an initiator, and caspase-3 as an executor, via an intrinsic pathway which can be used as diagnostic indicator. This study aimed to observe the expression of caspase-9 in undifferentiated nasopharyngeal carcinoma stage IV as a molecular marker. This was non-experimental, analytical, observational, quantitative study with cross-sectional approach. A biopsy was performed on patients of undifferentiated nasopharyngeal carcinoma. Patients were classified according to histopathology and clinical stage that refers to UICC. Expression of caspase-9 was measured with the immunohistochemical assay and further analyzed statistically. From 24 subjects, there were 12 subjects diagnosed as undifferentiated nasopharyngeal carcinoma stage IV. Receiving operating curve (ROC) of caspase-9 was between 50 % and 100 %. Value of AUC from ROC was 75.3 % (95 % IK 55.6 % - 95.1 %) p = 0.035. Expression of caspase-9 as an indicator of undifferentiated nasopharyngeal carcinoma stage IV was less than 2.294 with a sensitivity of 66.7 % and specificity of 66.7 %.
Keywords : Caspase-9, molecular diagnostic, sensitivity, specificity, undifferentiated nasopharyngeal carcinoma stage IV.

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