

Clinical, biological and ct predictors of mortality

In ischemic stroke patients in central Africa

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Abstract

Background. Stroke is a major public health problem by its morbidity and mortality. Its management remains a challenge for the medical professionals. In this work, we investigated the clinical, simple biological and tomographic determinants of outcome of patients suffering of ischemic stroke.

Materials and methods. This prospective study was conducted at the Cardiology Unit of the Kinshasa university hospital from January 2011 to June 2014. A total of 104 consecutive patients who suffered from first-ever ischemic stroke confirmed by computed tomography examination constituted the study sample. The parameters of interest were clinical, routine biochemical and radiological data within the 3 first days of symptom onset. Logistic regression was used to identify independent determinants of mortality risk..

Results. The average age of patients was 62 ± 14 years old with 68% of male. Among the 22 patients (21%) who died, we noted a low Glasgow score ($p = 0.01$), a high erythrocyte sedimentation rate

($p=0.001$), a high white blood cell count ($p=0.001$) and a non-lacunar ischemic lesion ($p=0.04$). In univariate analysis, factors associated with lethality were the presence of coma, elevated erythrocyte sedimentation rate, leukocytosis and non lacunar brain infarct. On multiple logistic regression analysis, elevated erythrocyte sedimentation rate (OR 1.8; 95% CI 1.22 to 89.35; $p=0.032$), lesion located in infra-tentorial area (OR 4.7; 95% CI 1.30 to 16,38 ; $p=0.017$) and hemorrhagic infarct (OR 10.6; 95% CI 2.21 to 77.89; $p=0.005$) were essentially independent determinants of ischemic stroke mortality.

Conclusion. The study seems to determine factors associated with mortality in patients suffering from cerebral infarction. Glasgow score and routine biomarkers may be useful in low setting area.

Key-words: Ischemic stroke, predictors of mortality, Central Africa.