

Objective: In this study, we evaluated if high sensitive C-reactive protein (HsCRP) should serve as a prognostic biomarker at the time of the first admission.

Patients and Methods/Material and Methods: This study is conducted in 179 acute stroke patients (98 males) with a median age of 70. The serum HsCRP levels were determined by ELISA at the time of admission. We compared the HsCRP levels with patient demographics, nursing parameters, lesion characteristics and risk factors. NIHSS and Rankin scales administered twice, during admission and three months later for determining the prognosis.

Results: The patients with HsCRP levels higher than 6.0 mg/L at the time of admission had 6.89 fold increase in the risk of mortality in the first three months by comparison to the patients with lower HsCRP levels. Patients who were older, needed parenteral management, tube-feeding, placement of urinary catheter, watch of an attendant, prolonged hospitalization, numerous consultations, and admission to intensive care unit had statistically significant high HsCRP levels during admission. The sensitivity of high HsCRP in predicting morbidity was 79% and mortality 93%.

Conclusion: In this study, we found that high HsCRP levels were substantially together with grave prognosis. Acute stroke patients with high HsCRP levels during admission may experience early complicated clinical course, and eventually death. Hence, estimating HsCRP in emergency setting may improve patient management.

doi:10.1016/j.jns.2017.08.3635

1401

WCN17-2665

SHIFT 3 - STROKE

Parenchymatous hemorrhage is associated with unfavorable longterm outcome in patients with atraumatic subarachnoid hemorrhage

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Background: So far, scientific and therapeutic efforts mainly focused on the prevention of rebleeding and ischemic complications (DCI) in patients with subarachnoid hemorrhage (SAH). However, data regarding the impact of parenchymatous hemorrhage (PH) on longterm outcome in these patients is limited.

Objective: To investigate the impact of PH on outcome.

Patients and Methods/Material and Methods: All consecutive patients with atraumatic SAH admitted to our hospital over a 5-year-period (2008–2012) were retrospectively analyzed. Extent of SAH as well as presence, localization and volume of PH were evaluated. Functional and health outcome were assessed after 12 months using the modified Rankin scale (unfavorable: 3–6) and the EQ-5D. Propensity-score (PS)-matching was performed to minimize potential bias due to confounding variables between SAH-patients with and without PH.

Results: Of overall 494 patients with atraumatic SAH, 85 (17.2%) patients had PH on initial imaging. PH-patients had a worse clinical condition on admission (WFNS: PH 4(3–5) vs. ØPH 2(1–4); $p < 0.001$) and a greater extent of SAH (modified Fisher: PH 3(2–4) vs. ØPH 2(1–3); $p = 0.001$). Median PH-volume was 11.0 (5.4–31.8) ml with largest volumes in patients with ruptured MCA-aneurysm (31.4 (11.7–42.4) ml). After successful PS-matching (parameters: age, WFNS, modified Fisher and Graeb score) patients with PH had worse

functional and health outcome after 12 months compared to those without PH (mRS 3–6: PH 56/82 (68.3%) vs. ØPH 33/78 (42.3%); $p = 0.001$; EQ-5D: PH 50(30–70) vs. ØPH 80(65–95); $p < 0.001$). In multivariate analysis presence of PH was the strongest independent predictor of unfavorable outcome after 12 months followed by the occurrence of DCI (risk-ratio (95%CI): PH 4.5 (2.0–10.0); $p < 0.001$).

Conclusion: Parenchymatous hemorrhage is frequent and associated with functional and subjective impairments in patients with atraumatic SAH.

doi:10.1016/j.jns.2017.08.3636

1402

WCN17-1705

SHIFT 3 - STROKE

Assessment of stroke risk factors in 15 months duration in university affiliated hospital, Tehran, Iran

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Background: Stroke is the second leading cause of death above the age of 60 and is expected to come to fourth place in economic burden by 2020. The varied prevalence of stroke and its risk factors are specific to different regions of the world.

Objective: The goal of this study is to investigate demographic features and risk factors in 15 months period in one of the Tehran University Affiliated hospitals.

Patients and Methods/Material and Methods: In a cross-sectional study done on 120 patients admitted for acute stroke to the emergency department of Imam Khomeini Complex between April 2013 to July 2014. Data were analyzed by SPSS 16th version.

Results: The mean age of patients is 63.4 ± 14.7 and 12.5% of them are less than 45 years old. 78% suffered from ischemic stroke and 22% from hemorrhagic ones. The prevalence rate was male 58/3%. Prevalence of patient with one risk factor is 4.5%, two risk factors is 5.5%, three risk factors is 17.3%. Being male is significantly higher in ischemic stroke than hemorrhagic ones & hyperlipidemia is significantly higher among females. Cigarettes and opium users is significantly higher in males.

Conclusion: More than half of the patients suffering from three major risk factors: hypertension, hyperlipidemia and diabetes. Another problem is that most of the patients were suffering from the risk factor of illiteracy that could lead to the improper lifestyle. The results indicated that the prevalence of known risk factors for stroke in this study, are as the same as developing countries and significantly higher than developed countries.

doi:10.1016/j.jns.2017.08.3637

1403

WCN17-2569

SHIFT 3 - STROKE

Effect of betahydroxybutyrate on prognosis of the cerebral ischemic strokes

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Background: Ischemic stroke is the third mortality factor all over the world and is one of the main factors of disability. Ketogenic diet has