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Oral presentations

192 INTERLEUKIN-6 AND C-REACTIVE PROTEIN PREDICT ALL CAUSE DEATH AND POOR FUNCTIONAL OUTCOME AFTER NON-SEVERE STROKE AND TRANSIENT ISCHAEMIC ATTACK

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Background: Inflammation plays a role in the development of ischaemic cerebrovascular events. High sensitivity C-reactive protein (CRP) is known to predict recurrent events. Little data exists for more upstream serum markers of inflammation.

Methods: BIO-STROKE and BIO-TIA were multicentre prospective biomarker and imaging studies of patients with non-severe stroke, TIA and controls. Exclusion criteria were malignancy, infection, recent trauma / surgery, recurrent stroke before phlebotomy/MRI. Serum biomarkers analysed included Interleukin (IL) – 6, CRP, IL-1, IL-8, IL10, IL12p70, IFN and TNF.Plasma CRP and IL-6 were measured by mass spectrometry. Additional biomarkers were measured using ELISA. Follow up was performed at 7, 28, 90 days and 1 year.

Results: 680 patients (439 strokes, 241 TIAs) and 68 controls were included in the analysis. The median age was 70 for cases. Carotid stenosis was present in 23.6% of cases. Median CRP was 3.75mg/L, 2.36mg/l and 1.87mg/L in the stroke, TIA and control groups (p=<0.001). Median IL-6 was 5.86pg/ml (stroke), 4.25pg/ml (TIA), 3.06pg/ml (control) (p=<0.001).

On multivariate cox regression analysis baseline IL6 and CRP were independent predictors of all cause death at 1 year with a HR of 1.005 (95% CI 1.002-1.007, p<0.001).and 1.005(95% CI 1.002-1.007, p<0.001) per unit increase. Both IL6 and CRP were associated with vascular death at 1 year. In adjusted analyses, IL6 and CRP were associated with poor functional outcome at 1 year (OR of 1.02(CI 1.01 -1.03) and 1.02(CI 1.01-1.03) per unit increase, for IL6 and CRP respectively).

On adjusted analysis, when IL6 was analysed as quartiles, there was a strong association with death at 1 year with an OR 1.87 (95% CI 1.19-2.93).CRP, analysed as quartiles, demonstrated an OR for death at 1 year of 1.64 (1.10-2.46).

Conclusion: IL-6 and CRP may be a useful prognostic factor for the prediction of outcome and death after stroke at 1 year follow up.