Abstract: P3384

Left atrial appendage pseudo-thrombus as an independent risk factor for ischaemic stroke in patients with non-valvular atrial fibrillation.

Authors:
E Nicol¹, T Semple¹, S Baleswaran¹, TOM Wong¹, ¹Royal Brompton Hospital - London - United Kingdom of Great Britain & Northern Ireland,

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Background

Left atrial appendage (LAA) pseudo-thrombus is a well recognised phenomenon in patients with atrial fibrillation (AF) undergoing cardiovascular CT (CCT). The clinical significance of LAA pseudothrombus on CCT, in those with non-valvular AF (NVAF) is unknown.

Objectives

To determine the association of LAA pseudo-thrombus in those with NVAF and ischaemic stroke.

Methods

216 consecutive patients with NVAF, referred for CCT (with both standard and 60-second delayed acquisitions) were assessed for the LAA pseudo-thrombus, LA and LAA dimensions and morphology, cardiovascular risk factors, treatment, and ischaemic stroke risk

Results

Mean age (±SD) was 65.0±10.6 years (range 32-89) and 70.8% were male. LAA pseudo-thrombus was present in 59/216 (27%) patients. Ischaemic stroke is more frequent with increasing age (OR 1.10 (95% confidence intervals (CI) 1.06, 1.16), p<0.0001), vascular disease (3.21 (1.18, 8.75) p=0.023), pseudo-thrombus on CCT (4.18 (1.97, 8.88) p<0.0001), cauliflow LAA morphology (4.93 (1.06, 22.09) p=0.042), and increased LAA ostial area : LAA tortuosity (4.64 (1.57, 13.71) p=0.006).

Age (1.09 (1.03, 1.15) p<0.0001), vascular disease (4.07 (1.19, 13.98) p=0.026), cauliflow LAA morphology (15.01 (2.93, 76.81) p=0.001) and pseudothrombus on CCT (3.62 (1.38, 9.50), p=0.009) were independently associated with ischaemic stroke. Pseudothrombus remained an independent risk factor even after CHA2DS2-VASc was included (3.21 (1.22, 8.41), p=0.018).

Conclusion

Pseudothrombus on CCT is a common finding in patients with NVAF and has a strong positive association with ischaemic stroke. Inclusion of pseudothrombus on CCT in risk assessment is additive to CHA2DS2-VASc in prediction of ischaemic stroke risk in patients with NVAF.