Microembolic signals in patients with cryptogenic stroke with or without patent foramen ovale.

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Abstract

BACKGROUND: To evaluate the incidence, frequency, and contributing factors of microembolic signals (MESs) in patients with cryptogenic stroke with or without patent foramen ovale (PFO).

METHODS: Transcranial Doppler monitoring for MESs detection was performed for 62 patients with acute cryptogenic stroke with PFO (PFO (+)) and 34 patients with acute cryptogenic stroke without PFO (PFO (-)).

RESULTS: The incidence of MESs was not significantly higher in PFO (+) patients (17/62, 27.4%) in comparison to PFO (-) patients (6/34, 17.6%; odds ratio 1.76, 95% confidence interval 0.62-5.00; P = .327). The frequency of MESs in PFO (+) patients was statistically higher than that of PFO (-) patients (0.70 ± 1.47 v 0.23 ± 0.55; P = .026). MESs was presented with higher incidence in a subgroup of patients suffering from both patent foramen ovale and atrial septal aneurysm (P = .044).

CONCLUSIONS: The likelihood of PFO as a source of MESs is higher when associated with atrial septal aneurysm.