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

Shariat A, Yaghoubi E, Nemati R, Moaref AR, Aghasadeghi K, Borhani Haghighi A.

Neuroscience Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.

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.