Patent foramen ovale is not associated with an increased risk of stroke recurrence

Abstract:

Background and Purpose: Despite numerous studies suggesting a relationship between paradoxical embolism from a patent foramen ovale (PFO) and stroke, the role of PFO as a risk factor for cerebral ischaemia remains controversial. We therefore sought to determine the association between a RLS detected by contrast-enhanced transcranial Doppler ultrasonography (c-TCD) and recurrent stroke in an unselected population sample. Methods: We analyzed the records of 763 patients with diagnosis of cerebral ischaemia at our institution. All patients had undergone TCD-based detection of RLS. Embolic signals have been measured both under resting conditions and after performing a Valsalva maneuver. For follow-up, all patients were contacted by mail, which included a standardized questionnaire. Endpoints of follow-up were defined as recurrence of cerebral ischaemia, occurrence of myocardial infarction or death from any cause. Results: Follow-up data were available in 639 patients (83.7%). At baseline, a RLS was detected in 140 (28%) men and in 114 (42%) women. Ten shunt-carriers (1.6%) and 32 patients (5.0%) without RLS had suffered a recurrent stroke. After adjustment for age, sex, and atrial fibrillation, the hazard ratio of RLS for stroke recurrence was 0.86 (95% CI 0.41-1.79). The condition of RLS at rest adjusted for age, sex, stroke subtype, and cardiovascular
risk factors was not found to increase the risk of stroke substantially (HR 1.16 [95% CI 0.41-3.29]).

Conclusion: Our data suggest that the risk of recurrent stroke in subjects with PFO is not significantly increased in comparison with subject without it.