Aortic root dilatation in young stroke patients with patent foramen ovale

Niail Keenan, Eric Brochet, Jean-Michel Juliard, Mihaela Malanca, Pierre Aubry, Laurent Lepage, Caroline Cuff, Alec Vahanian, David Messika-Zeitoun

CHU Bichat, Cardiologie, Paris, France

Background: No previous study has looked for an association between aortic dilatation and the clinical sequelae of patent foramen ovale (PFO), although a possible relation has been identified in case reports. The aim of this study was to compare aortic dimensions in patients with symptomatic PFO with healthy controls.

Methods: Forty-seven consecutive patients were identified who (a) presented with cerebrovascular accident (CVA) assessed as most likely secondary to PFO (confirmed on bubble study), (b) were under 50 years old, (c) underwent percutaneous PFO closure, and (d) had stored transthoracic echocardiogram images of the aortic annulus and root, as well as 47 age-, sex- and BSA-matched healthy controls.

Results: Among the 47 patients, 35 patients (74%) also met the diagnostic criteria for atrial septal aneurysm (ASA). Aortic root diameters were greater in patients with PFO at all three levels. The difference (about 10%) was more marked at the level of the sinuses of Valsalva (34±4mm vs. 31±34mm, p<0.01), and in the proximal ascending aorta (32±4mm vs. 29±3, p<0.01), and more modest at the level of the aortic annulus (23±3mm vs. 22±2mm, p=0.2). Left ventricular measurements showed that PFO patients did not have larger hearts overall (end-systolic diameter: 30±4mm vs. 32±5mm, p=0.10, end-diastolic diameter: 48±5mm vs. 50±4mm respectively, p=0.04).

Conclusion: This study shows that aortic dimensions are increased in young PFO patients who have sustained a CVA compared with healthy subjects. This association may be due to a mechanistic effect, or more probably to a common pathology.

Prevalence of rheumatic heart disease in SENEGAL. An echocardiographic screening.

Abdoul Kane
Hôpital Général de Grand-Yoff, cardiologie, Dakar, Sénégal

Background: Most of the epidemiological studies of the prevalence of rheumatic heart disease have used clinical screening with echocardiographic confirmation of suspected cases. A recent study with systematic echocardiographic screening of all surveyed children shows a higher prevalence of rheumatic heart disease in Cambodia and Mozambique (10 times greater than what was found by clinical screening alone).

We conducted this study to estimate the prevalence of rheumatic heart disease in school-age children of Senegal, a sub-saharan African country.

Methods: Randomly selected school children from 5 to 18 years of age in Dakar, the capital city of Senegal, were screened for rheumatic heart disease according to standard clinical and echocardiographic criteria. The echocardiographic examination was performed with a Sonosite Micromax Machine using M-Mode, 2D, Color flow, pulse Doppler and continuous Doppler.

Results: The total population was 2004 children. 51.6% were male. The mean age was 14 years. Clinical examination detected rheumatic heart disease that was confirmed by echocardiography in 3 children.

The echocardiographic screening detected 15 cases of rheumatic heart disease. The prevalence rates was 1.5 cases per 1000 using clinical criteria and 7.5 cases per 1000 if echocardiographic screening was used. Males were more affected than girls. The mitral valve was involved alone in 53.3 % of cases. Mitral and aortic valves were both involved in 40% of cases. The aortic valve was involved alone in 6.7% of cases.

Conclusion: Our studies confirmed that echocardiographic screening, as compared with clinical screening, is more accurate and showed a higher prevalence of rheumatic heart disease. However, the prevalence rate in Senegal is lower than that found in Mozambique and Cambodia, using the same criteria.

Hypnosis: a new alternative to facilitate trans-esophageal echocardiography.

Yasmina Boucherna (1), Beatrice Miquel (2), Alain Cohen-Solal (1), Eric Vicaut (2), Damien Logeart (1), Francois Tournoux (1)
(1) CHU Lariboisière, Cardiologie, Paris, France – (2) Hôpital Fernand Widal, Unité de Recherche Clinique, Paris, France

Background: Trans-esophageal echocardiography (TEE) is one of the major diagnosis tests for cardiovascular disease. However it can be source of severe discomfort for the patient and general anesthesia cannot always be performed since it may adversely impact the diagnostic value of the procedure and/or patient’s safety.

Methods and Results: Hypnosis is a safe validated alternative or complement to traditional anesthesia for small procedures or in addition to drugs to reduce the dose of pain killers. During the hypnotic state, the patient’s sensitivity to a stimulus and his/her emotional interpretation of this stimulus can be dissociated. Feelings such as discomfort linked to a painful stimulus can be then dramatically reduced and make this stimulus acceptable. After testing various approaches, we have developed a strategy to prepare patients for TEE using hypnosis with only topical oropharyngeal anesthesia. This approach helps reduce the patient’s anxiety, especially in anticipation of the probe’s introduction. We are currently prospectively testing the benefit of this strategy in a randomized study with blinded investigator compared to usual practice. Final results are expected in the fall of 2010.

Conclusion: Hypnosis could be an alternative method to facilitate TEE.