

Impact on actual clinical practice of the latest evidence for percutaneous closure of patent foramen ovale associated with stroke. A single center experience

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Background and aims: Since september 14th, 2017. Three large clinical trials demonstrated that, in selected patients, percutaneous closure of patent foramen ovale (PFO) was associated with lower recurrence in patients with cryptogenic stroke (CS). Our aim was to determine the impact of these findings on routine clinical practice in a tertiary hospital.

Methods: Patients with percutaneous closure of PFO due to CS (January 2001-January 2020) were included. The clinical characteristics were analyzed individually and grouped in the RoPE score, before and after the publication date. Complex anatomy (CA) defined as interatrial septum aneurysm or basal wide bubble passage was evaluated in both periods.

Results: 293 patients were included. The mean age was 49 ± 11 years, 15% were older than 60 years, 60% men, 26% hypertensive, 28% smokers and 7%diabetics. The median RoPEscore was 6 [p25-75, 5-7] and 75% met CA criteria.

Since september 14th, 2017, the frequency of CA and the mean age of the patients were significantly higher (89% vs. 69% $p < 0.0005$ and 51 ± 11 vs. 48 ± 11 years, $p = 0.02$, respectively), and RoPEscore, significantly lower (5 [5-7] vs. 6 [5-7], $p = 0.02$).

Conclusion: The publication of clinical trials wich demonstrated the benefit of percutaneous closure of PFO in CS had a significant impact on the daily clinical practice of our institution, with an increase in indications for CA, despite a clinical profile suggestive of lower causal probability of PFO.