

## P916

**RoPE score in causal association between patent foramen ovale and cryptogenic stroke, is it enough?**

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**Introduction:** The prevalence of patent foramen ovale (PFO) in the general population is high (25%). In patients with cryptogenic stroke (CS) and PFO, determining whether it is causally related to stroke or is an incidental finding is a controversial issue. The RoPE score was described in 2013 to predict the likelihood that the stroke was related to the PFO. The higher the score, the greater the risk of attributable causality, considering 6 as the cut-off point. This scale includes clinical variables, but does not consider the echocardiographic characteristics of PFO that were used as inclusion criteria in studies that have shown benefit with percutaneous closure, such as the complex anatomy of PFO (extensive passage of microbubbles across the PFO at rest and/or interatrial septum aneurysm).

**Purpose:** Our aim was to investigate the association of the RoPE score with recurrence of stroke in a series of patients with CS and percutaneously closed PFO in a period of time prior to the current recommendations, as well as to describe the presence of complex anatomy of PFO and its relationship with the value of that score.

**Methods:** A series of 172 consecutive patients with CS and percutaneous closure of PFO, included from January 2001 to November 2014 in a single center was analyzed, and the RoPE score was calculated retrospectively in each patient. The presence of complex anatomy of the PFO was estimated by echocardiography, and the rate of recurrence of stroke and the relationship of both variables with the value of the RoPE score was investigated.

**Results:** Of the 172 patients in the series, it was possible to calculate the RoPE score in 150 (87%) of them, which constitute the study sample. The mean age was 46 years (range 17-78), 60% were male, 21% were hypertensive, 6% diabetic and 27% smokers. A history of previous stroke was present in 3% of patients and 11% had an imaging study with cortical infarction. RoPE score was  $\geq 6$  in 69% of the sample, and 66% of the patients presented complex anatomy of PFO, without significant differences between those with RoPE score  $\geq 6$  and  $< 6$  (65% versus 70%,  $p = 0.62$ ). Acute complications (mortality, cardiac tamponade, stroke, device embolism) related to closure of the PFO were not observed. After 17.5 years of maximum follow-up (mean  $9.6 \pm 3.7$  years, no patients lost, with a total of 1441 patients-years of observation), 6 patients presented a stroke. The recurrence rate of stroke was very low in both groups of patients, either with RoPE score  $\geq 6$  or  $< 6$  (0.4 versus 0.5 per 100 patients/year,  $p = 0.87$ ).

**Conclusions:** In our center, before the current recommendations of PFO closure associated with CS, most of the patients had a RoPE score  $\geq 6$ . The majority of patients presented a complex anatomy of the PFO and the incidence of stroke recurrence was very low, independently of the value of the RoPE score.