Patent foramen ovale closure for recurrent stroke prevention: Recent evidence towards individualized decision-making.

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Letter to the Editor

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We read with great interest the meta-analysis by Piccolo and colleagues that showed a reduction in the recurrent stroke risk after patent foramen ovale (PFO) closure compared with medical therapy in patients with embolic stroke of unknown origin [1].

While evidence from multiple trials shows that PFO closure is more effective than medical therapy in reducing recurrent strokes in patients with cryptogenic stroke and PFO, the degree of benefit for patient subgroups is unknown. Current guidelines emphasize the importance of informed shared decision-making evaluating the benefits and risks of a lifelong device in every patient [2,3].

Recently, Kent et al. published the results of their individual patient data analysis of 6 randomized trials with 3740 patients with otherwise cryptogenic stroke and PFO, randomized to PFO closure plus medical therapy or medical therapy alone [4]. PFO-Associated Stroke Causal Likelihood (PASCAL) Classification System was used to classify patients into 3 categories (unlikely, possible, or probable) based on the clinical probability that the stroke was causally related to the PFO. Over a median follow-up of 57 months, subgroup analysis revealed significant interaction effects, with reduction in recurrent strokes with PFO closure only in the patients in the possible and probable causal relatedness groups (HR 0.38 [95% CI 0.22–0.65] and HR 0.10 [95% CI 0.03–0.35], respectively), and not in the unlikely group (HR 1.14 [95% CI 0.53–2.46]).

These results suggest that application of this classification system has the potential to identify patients who would benefit from PFO closure and thus guide decision-making.

Declaration of Competing Interest

The authors report no relationships that could be construed as a conflict of interest.

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