Compared with medical treatment, percutaneous closure procedures prevent recurrent stroke

January 8 2018

Two systematic evidence reviews and meta-analyses show that percutaneous closure procedures prevent recurrent stroke in patients with patent foramen ovale (PFO) compared with medical treatment alone. The first review was conducted by researchers from Magna Graecia University in Catanzaro, Italy and the second by researchers from the University of Tennessee, School of Medicine. Both are published in *Annals of Internal Medicine*.

PFO is a common congenital heart abnormality that increases the risk for cardioembolic cerebrovascular incidents, such as stroke, or transient ischemic attacks (TIAs), but most PFO carriers remain asymptomatic and do not develop serious complications. However, because PFO is associated with cryptogenic stroke, particularly in young patients, it has been suggested that fixing the abnormality through surgical procedure could be warranted.

Both teams of researchers reviewed 4 randomized controlled trials comparing PFO closure using a currently available device with medical treatment alone to compare risks for recurrent stroke. The studies evaluated were PC (2013), RESPECT (2013), REDUCE (2017), and CLOSE (2017). The data showed that PFO closure reduced the risk for stroke or TIA and increased the risk for peri-procedural atrial fibrillation or atrial flutter. The authors of both reviews conclude that percutaneous PFO closure is superior to medical therapy for preventing recurrent

stroke or TIA, but patients should be selected carefully considering the potential risks.

According to the authors, these results demand a revision of current practice guidelines to include a positive outlook for PFO closure for prevention of recurrent cryptogenetic stroke.

More information: *Annals of Internal Medicine* (2018). http://annals.org/aim/article/doi/10.7326/M17-3033

Annals of Internal Medicine (2018). http://annals.org/aim/article/doi/10.7326/M17-2679

Provided by American College of Physicians