**Abstract Body:**

**Background and purpose:** Paradoxical embolism through a right-left shunt (RLS) such as a patent foramen ovale (PFO) accounts for ~ 5.5% of ischemic strokes. It has traditionally been diagnosed by echocardiography, but several reports suggest that transcranial Doppler saline studies (TCDSS) may be more sensitive. One reason is that sedation for trans-esophageal echocardiography may prevent an adequate Valsalva maneuver.

**Methods:** We studied prospectively the frequency of detection of a RLS by echocardiography among patients with cryptogenic stroke suspected of paradoxical embolism, in whom a TCDSS detected a RLS.

**Results:** Data were available in 340 patients, 61.5% female, mean (SD) age 53 (14) years, with a mean (SD) followup of 35 (27) months. Echocardiography failed to show a RLS in 43 (15.4%) of the patients; surprisingly, this occurred even in some patients with high-grade shunts (Spencer grade) on TCD. Among patients with a negative echo, 45.5% were grade 1, 32.2% grade 2, 13.3% grade 3, 7.1% grade 4 and 4.7% grade 5.

Kaplan-Meier survival free of stroke or TIA was predicted significantly by TCDSS grade 3 or more (p=0.028), but not by RLS on echo (p=0.42). (Figures).

**Conclusion:** TCD saline studies are superior to echocardiography in the diagnosis of PFO.
Author Disclosure Block:

J. Tobe: None. C. Bogiatzi: None. C. Munoz: None. A. Tamayo: None. J. Spence: None.