卵円孔開存と脳卒中（Abstract＃1935）

新たに発見された心房中隔の内壁異常により卵円孔開存患者の脳卒中のリスクを予測できる可能性がある

Presence of newly identified abnormality in inner wall of atrial septum may predict risk of stroke in patients with patent foramen ovale

一次中隔と二次中隔の間の中隔路の存在が卵円孔開存患者の脳卒中リスク上昇の強力な予測因子となるようである、とAmerican Heart Association学会で発表された。米国の研究者らは、患者100人の経食道心エコーの画像を、まずレトロスペクティブに次に盲目的に解析し、中隔路を、なし／非常に小さい、中等度、大きい（長さ1.0cm、幅0.25cm）の3つに分類した。100人中19人が脳卒中を発症し、そのうち9人が卵円孔開存を有していた。9人中8人（89%）が大きい中隔路を有していた。脳卒中を起こしていない81人中大きな中隔路を有する者はわずか4人（5%）であった。アブストラクトには間に合わなかったが、このレトロスペクティブな盲検スタディは現在250例に増大しており、同様に有意な予測能を有している。

Full Text

The presence of a tract in the inner wall of the atrial septum appears to be a strong predictor for elevated stroke risk in patients with patent foramen ovale, according to a presentation at the annual meeting of the American Heart Association.

Patent foramen ovale has a prevalence of roughly 25 percent of the general population. Although most patients survive into adulthood without any significant symptoms, patency is the most likely cause of stroke in patients under the age of 55 years.

According to Robert Biederman, MD, principal investigator and presenter of the study and a cardiologist at the Gerald McGinnis Cardiovascular Institute, patent foramen ovale is considered to be a factor in as many as 40 percent of patients who have an ischemic stroke of unknown cause.

Although a number of effective techniques exist to close the defect, including newer percutaneous therapies, the procedures are approved for use in the U.S. by the Food and Drug Administration only after a patient has had a second stroke or a myocardial infarction.

Over the course of many years of reviewing trans-esophageal echocardiograms of patients with and without the defect, Biederman began noticing an anatomical feature of the atrial septum that was more often apparent patients who had strokes. The anomaly was a septal tract between the septum primum and septum secundum.

In the current analysis, the researchers retrospectively and blindly analyzed trans-esophageal echocardiography studies from 100 patients. The study identified three classifications of septal tract formation: Type A -- "absent" or very minimal track formation; Type B -- "intermediate" sized tract formation; or Type C -- "present," or a large tract formation (defined as a separation 1.0 centimeter long and 0.25 centimeter wide).

Of the patients studied, 19 had a history of stroke and 81 had no prior stroke. Among the stroke patients, 9 had a patent foramen ovale and 8 of those (89 percent) had a Type C, large-tract, septum. Of the 81 non-stroke patients, only 4 (5 percent) fell into the Type C classification.

"If these results hold true, we may in the near future have the ability to reduce the risk of stroke by 90 percent in those patients with patent foramen ovale at greatest risk simply by evaluating this specific morphological feature of their atrial septum. Those patients theoretically could undergo a minimally invasive surgical repair of the foramen ovale and forgo a life-long dependency on blood thinning medication," Biederman said.

Although completed too late to be included in the abstract, the retrospective analysis of was recently extended to 250 patient cases with the same significant prognostic capability.