

Our Thanks To:

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2- Neurology Department, Oswiecim Hospital, Poland
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CASE REPORT

A 22 year old male was admitted to the Oswiecim Hospital in Katowice, Poland in February 2005 after sudden speech disorder and right side hemi paresis. Patient history revealed two instances of head trauma with accompanying blackout. In each instance the patient had no additional illnesses. On initial work up, symptoms of multi focus brain damage were observed: dysarthric speech, right side hemi paresis, right side pyramid 3/4 by Lovet's scale, and strong balance disturbances.

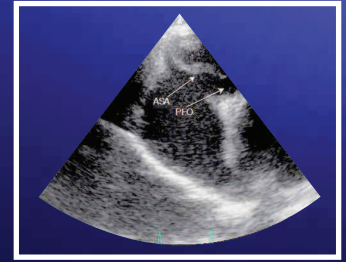
A Head CT revealed numerous ischemic foci in the temporal and optical lobes of the left cerebral hemisphere and the left hemisphere of the cerebellum. In search for possible causes of brain infarction, a carotid intracranial Doppler was performed with a normal result. ECG revealed a lower atrial rhythm and right atrial enlargement.

TEE excluded any valvular disorders, echogenic blood in either atria, and other possible causes of cardiac embolisation. A Patent Foramen Ovale (PFO) was observed along with an atrial septal aneurysm with amplitude of 15mm, a significant Chiari network, and a PFO with a long tunnel opening exceeding 1 cm during Valsalva maneuver. In color Doppler imaging 4 to 5 small fenestrations were observed in the aneurysmal atrial septum without significant left to right shunt. After an injection on agitated 0,9% NaCl, a right to left shunt through the foramen ovale was observed.

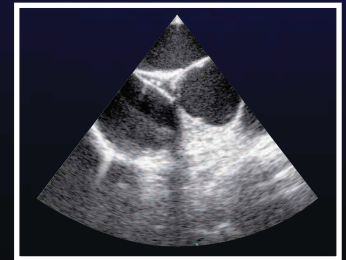
The patient was selected for PFO closure. Considering the multiple defects observed in the septum, it was decided to cross the septum through one of the smaller fenestrations. A 30mm Cardia Intrasept PFO occluder (Cardia® Inc., Eagan, MN USA) occluder was selected to cover the entire septum. The device was implanted under fluoroscopy and TEE without event. Control TEE performed one week post implant with proper device location and no shunt.

Conclusion

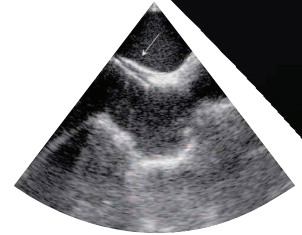
PFO closure with a multifenestrated septum, a larger PFO tunnel, and ASA with significant Chiari network can be performed successfully with a Cardia Intrasept PFO occluder without pre and post operative complications.



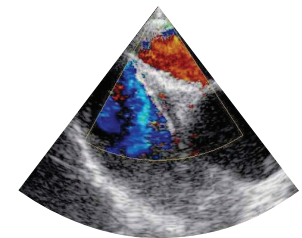
PFO with septal aneurysm



Intrasept pre-release



Intrasept post-release



Complete closure of shunt

CARDIA®