NEAR FETAL CIRCULATION EQUIVALENT DUE TO PFO IN A 75 YEAR OLD LADY AND TRANSCATHETER CORRECTION

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History and physical:

A 75 year old retired teacher, presented with gradually progressive fatigue, SOB and positional color changes with ADLs for the last 6 years despite continuous O2. On examination she had a dusky hue with stable vitals; O2 sat while lying down was 92%, and on standing it dropped to 72%. She underwent TEE and heart cath that showed a PFO with very peculiar shunting. IVC angiogram showed significant streaming and shunting from IVC to LA. PFO was closed with a 30 mm cribriform device. Her symptoms resolved immediately and there was no positional variation on oximetry. She underwent repeat cath after 4 months that showed no residual shunt.

Imaging:

Video 1: PODS pre showing IVC angiogram with selective streaming and shunting from IVC to LA and filling of all 4 chambers of the heart.

Video 2: PDS post showing IVC angiogram with resolution of the shunt after 30 mm cribriform device.

Indication for intervention:

Platypnea orthodeoxia syndrome.

Intervention:

Right and left CFV accessed using USG guidance. PFO was interrogated using ICE imaging for suitability of closure, crossed with MP catheter and 0.035 superstiff wire introduced in the LUPV. Using the Torque view 45 sheath, PFO was closed with a 30 mm Cribriform device with mild residual shunt on bubble study. Saturations improved immediately from low 80's to mid 90's and stayed consistent even with Valsalva challenge. Access sites closed with one

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perclose on each side. Repeat IVC angiogram after 4 months showed no residual shunt and stable device.

Learning points of the procedure:

Platypnea orthodexia syndrome may be challenging to diagnose at times. Detailed history, positional oximetry and dynamic angiogram is very useful. Closure of PFO in PODS is very gratifying as it not only ameliorates symptoms but also resolves the need for continuous o2 support in the absence of lung disease.

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