A TERTIARY CARDIOLOGY SERVICE EXPERIENCE OF PFO CLOSURE

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Background Whilst the incidence of patent foramen ovale (PFO) is one in four, PFO closure to prevent recurrent stroke is only appropriate in a much smaller cohort, with approximately 600 procedures performed in the UK in 2015/6.(1) Outcomes may be better in centres with increased exposure to PFO cases, the consensus being a minimum of 15 cases per year.(2) In the UK, PFO closure is under joint review by NHS commissioning services and the British Cardiovascular Intervention Society to promote PFO centres and centralise expertise.(3)

Purpose The primary aim was to report the safety of PFO closure, and the secondary aim to evaluate the efficacy of the procedure performed at a tertiary cardiology service in the UK.

Methods This was a retrospective observational cohort study of consecutive patients undergoing PFO closure at a tertiary cardiology unit between February 2015 and August 2017. All procedures were elective and performed by a Consultant Cardiologist. Data was collected from a combination of paper case notes and electronic records. Primary outcome was repeat stroke, death and device embolization. Secondary outcomes were the presence of bubble on post-procedure echo and a significant residual shunt, defined as more than 30 bubbles. Procedure success was defined a priori as non-significant residual shunt at follow up.

Results Forty-eight cases were identified. Median follow up time was 5 months, inter-quartile range 3–6 months. Table 1 demonstrates the demographics of the cohort.

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Cohort demographics	
Age μ ±SD	46.71 ±10.98
Gender n, (%)	<ul style="list-style-type: none"> Male 24 (50%) Female 24 (50%)
Ethnicity n, (%)	<ul style="list-style-type: none"> Caucasian 48 (100%)
BMI μ ±SD	28.81 ±8.43
Funding n, (%)	<ul style="list-style-type: none"> NHS 47 (97.92%) Private 1 (2.08%)
Smoking status n, (%)	<ul style="list-style-type: none"> Smoker 5 (10.4%) Ex-smoker 27 (56.25%)
Diabetes n, (%)	0

There were no cases of stroke in the cohort. One patient with a long tunnel defect experienced device embolization. This was successfully recovered however during retrieval the patient sustained a vascular groin injury with no long-standing morbidity. They subsequently went on to have a successful PFO closure using a trans-septal technique via the contralateral groin. The trans-septal technique was used in a further two cases, one for another long tunnel defect and one for a prominent ridge at the pulmonary veins obstructing catheter positioning.

All patients were alive at discharge (median duration of stay 1 day, range 0–31) and at 30 days post discharge.

Post-procedure echo was bubble negative in 39 cases (81.25%). Of the nine cases with a bubble positive post-procedure echo, the shunt was significant in two cases. Overall PFO closure was successful in 95.83% (46/48). There was no association between gender ($p=0.137$, Fisher's exact test), age ($t(46)=0.054$, $p=0.957$) or BMI ($t(44)=0.563$, $p=0.577$) and bubble positive post-procedure echo.

Conclusion The data demonstrates PFO closure has a good safety profile and efficacy when performed by an experienced operator. Operators should be experienced in trans-septal PFO closure techniques to facilitate the rare cases when conventional crossing is not possible. The role of specialised commissioning in developing PFO closure centres will hopefully lead to improved outcomes by centralising care and concentrating expertise.

Conflict of Interest None

IMPACT OF DIABETES MELLITUS ON MORTALITY FOLLOWING PERCUTANEOUS CORONARY INTERVENTION FOR LEFT MAIN STEM DISEASE

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Introduction In the current era of newer generation drug eluting stents, intravascular imaging and potent antiplatelet drugs, percutaneous coronary intervention (PCI) has become an acceptable treatment for left main stem (LMS) disease. Left main stem PCI poses several challenges which can be amplified by the presence of diabetes mellitus (DM). Patients with DM have more extensive and complex coronary artery disease (CAD) with higher rates of stent restenosis and thrombosis. There is a paucity of 'real world' outcome data in diabetic patients undergoing LMS PCI.

Our study aims to assess the impact of non-insulin treated (NITDM) and insulin treated (ITDM) diabetes on mortality

Abstract 68 Figure 1 % Unadjusted 30-day mortality