

NP-2

A Study of ASD management in one UK Centre, comparing length of stay, complication and reintervention

Boyles C.E., Sharpe A., Yee B.

University Hospital Southampton NHS Foundation Trust, Southampton, UK

Introduction: Atrial septal defects are diagnosed in one child per 1500 live births, and make up 30-40% of all congenital heart diseases (CHD) seen in adult congenital heart disease (ACHD)¹. They are closed with a transluminal device (cardiac catheter), or surgically.

Methods: A retrospective study, between 2008 and 2017, was carried out in one UK centre. The length of stay, reintervention and complication rate was explored for both paediatric and ACHD patients. The percentage of catheter closure compared to surgical closure was studied over the 10 year timeline. The data were collected from the local cardiac database.

Results: The results show a shorter length of stay (LOS) for the patients treated with device closure, median LOS 2 days, versus surgery LOS 7days.

Over the 10 year period, in a cohort of 349 cases managed with catheter closure, 24 had complications, the main complication being failed intervention (8 cases). Paediatric catheter procedure complications were 6/149 (4%), and ACHD complications 16/200 (8%).

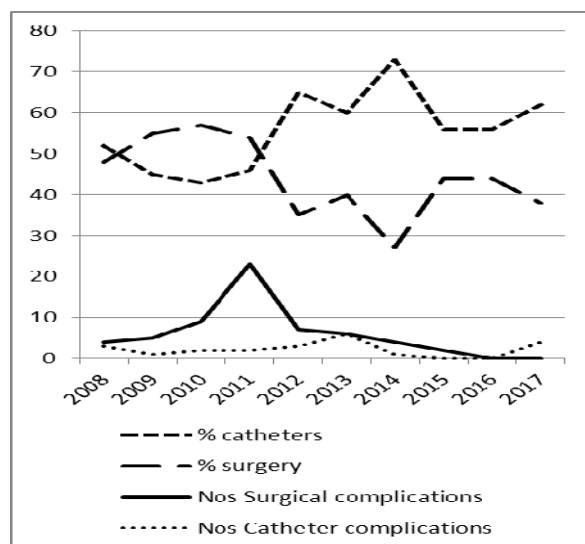
In a cohort of 283 cases managed with surgical closure 34 had complications. These consisted of paediatrics: 12/152 (7.9%), and adults 22/131 (16.8%). The main surgical complications were pericardial effusion (10 cases) and arrhythmia (9 cases).

Failed intervention of catheter closure led to all patients having defects closed subsequently.

Of this group, seven patients had surgical closure, and one patient had successful closure via repeat cardiac catheter. The four ACHD patients had longer than average length of stay following surgery (median 11 days) compared to patients who had primary surgical closure.

Over the 10 year period, there was a slow increase in catheter closure of ASD compared to a slow reduction in surgical closure.

Conclusions: Management of closure of ASD is dictated by size and position of the defect, comorbidities, and patient choice. The patients managed by catheter intervention had both a shorter length of stay, and a lower complication rate. Failed intervention of catheter closure led to all patients having defects closed successfully subsequently.



Reference: 1. Kaplan S (1993). "Congenital heart disease in adolescents and adults. Natural and postoperative history across age groups". *Cardiol Clin.* **11** (4): 543–56.