

Large Atrial Septal Defects in Adolescents and Adults: A High Incidence of Sinus Venosus Type Defects Presenting Late

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Background: Isolated Atrial Septal Defect (ASD) is a common congenital heart disease that could present at any age. It is the most common form of heart disease presenting in adolescents and adults.

Objective: To evaluate adolescents and adults presenting late with significant ASD's and their presentation, management and short-term outcomes.

Design: A Retrospective Study.

Setting: Mohammed Bin Khalifa bin Salman Al-Khalifa Cardiac Center, Bahrain.

Method: A retrospective study was performed. Adolescents/adults more than 14 years of age with significant ASD referred to a tertiary cardiology unit over a three-year period were reviewed from 1 March 2012 to 31 March 2015. The data was obtained from a computerized database.

Result: Thirty-two patients presented with large ASD. Twenty-five (78.1%) were females. The mean age was 29.4 years. The majority were diagnosed as an incidental finding of murmur during routine examination. A high number of Sinus Venosus Defects in the adolescent/adult group (22% compared to 7% in the pediatric group: $P=0.01$) was found, which were more common in males (42% compared to 17%: $P=0.128$). Nine (28.1%) underwent successful device closure. Twenty-three (71%) patients were referred for surgical correction. There was no mortality.

Conclusion: Significant ASD is often undiagnosed until adolescence or adulthood. If not promptly diagnosed and managed, it is likely to present with symptoms and signs of pulmonary overload later in life. Sinus Venosus ASD's should be suspected in male adolescents and adults with significant ASD's in Bahrain and surgical closure is often required.

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