

**RISK FACTORS OF PULMONARY
HYPERTENSION IN PATIENTS WITH
ATRIOVENTRICULAR SEPTAL
DEFECTS**

THESIS SUBMITTED FOR FULFILLMENT OF M.Sc.
DEGREE IN PEDIATRICS

By
Sara Ibrahim Abu Elnour
(M.B. B.Ch)

Supervised by

Prof. Dr.
Faten Mohammed Abd Elaziz.
Professor of pediatrics
Faculty of Medicine
Cairo University

Prof. Dr.
Mona Mohammed Fared Kansouh

Professor of pediatrics
Faculty of Medicine
Fayoum University

Prof. Dr.
Rasha Ibrahim Ammar
Assistant Professor of pediatrics
Faculty of Medicine
Cairo University

2012

Summary

Summary

AVSDs occur in 0.19 of 1,000 live births and constitute 4% to 5% of congenital heart defects. AVSD has a wide range of anatomical characteristics ranging from an atrial septal defect (partial AVSD) to a complete form with a large scooped-out ventricular septal defect (complete AVSD). Both sexes are equally affected and a striking association with Down syndrome was found. Depending on the morphology of the superior leaflet of the common atrioventricular valve, 3 types of CAVC have been delineated (type A, B and C, according to Rastelli's classification).

Patients with complete AVSD have unrestricted pulmonary blood flow, which leads to rapid onset of pulmonary vascular disease unless the lesion is corrected early in life or palliated with a pulmonary artery band.

This study included 50 patients with AVSDs. Including any age, both gender of patients with AVSDs who presented to catheterization unit of Cairo university pediatric hospital for hemodynamic evaluation by diagnostic catheterization before surgery. Patients was be subjected to full history ,examination, CXR, ECG, echocardiography and cardiac catheterization to determine the risk factors of pulmonary hypertension in patients with AVSDs.

In our study, only size of VSD, VSD+ASD and degree of AV valve regurgitation were found to be significant risk factors for development of pulmonary hypertension also we found significant relation between the rate of progression of the pulmonary vascular disease and the size of VSD.

The study showed that no significant differences in development of pulmonary hypertension and pulmonary vascular disease in relation to the following factors: age, gender, Down syndrome and different types of CAVSDS.

Not all AVSDs patients with pulmonary hypertension diagnosed by echocardiography have pulmonary hypertension. High significant difference in PAP measured by cardiac catheterization compared to ESPAP measured by echocardiography ESPAP is always higher than that of the cardiac catheterization.