

The prevalence of congenital heart disease in children and
adolescents with Down syndrome at Dr George Mukhari
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BACKGROUND and OBJECTIVES

Congenital heart diseases (CHD) are the common congenital anomalies in patients with Down syndrome (DS). The prevalence of CHD in patients with DS is documented in the literature but not in our setting. We aimed to determine the prevalence of CHD in children and adolescents with DS at Dr George Mukhari Academic Hospital (DGMAH).

METHODS

The study was a retrospective review of children and adolescent patients with DS and CHD at DGMAH from 2016 to 2019. A total convenience sampling approach was used.

RESULTS

A total of 148 DS patients were reviewed of which 102 (68%) had CHD. 22 patients (21.6%) were born at DGMAH and 78.4% were referrals. The prevalence of children with DS and CHD during the study period was 0.7 per 1 000 live births.

There were 52 (51.0%) males and 50 (49%) females. A total of 48 (47.1%) patients had Atrioventricular septal defect (AVSD), 20 (19.6%) Patent ductus arteriosus (PDA), 17 (16.7%) Ventricular Septal Defect (VSD) and 10 (9.8%) Atrial Septal Defect (ASD). There was a co-occurrence of AVSD and PDA (n = 1), Pulmonary stenosis (PS) and VSD (n = 1), PDA and VSD (n = 1), Atrial septal defect (ASD) and VSD (n = 1), Mitral regurgitation (MR) and Tricuspid Regurgitation (TR) (n = 1), isolated Patent foramen ovale (PFO) (n = 1), Transposition of great arteries (TGA) (n = 1) and Tetralogy of fallot (TOF) (n = 1).

CONCLUSIONS

The prevalence of DS with CHD at DGMAH was 0.7 per 1 000 live births. 68% of DS patients had CHD with AVSD being the most common found in 47.1% which is in keeping with the literature.