Outcomes of infants with structural birth defects in Galle, Sri Lanka

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ABSTRACT

Introduction and objectives:

Birth defects are a significant health problem among children. The outcomes of structural birth defects (SBD) vary owing to the severity of the defect and availability of the management options. Outcomes of children with SBD is vital to identify the severity of the problem, to make policies and to allocate services to manage SBD.

Methods:

A prospective longitudinal follow-up study was carried out to follow-up 620 SBD in a sample of 315 infants during their infancy. They were not diagnosed with any genetic syndrome. At the end of the first year of life the outcomes of the infants and the outcomes of the SBD were evaluated. The infant outcomes were measured as alive or dead. The outcomes of the SBD were measured as completely corrected, partially corrected (residual defect or residual impairment present) and uncorrected. Data were analyzed using SPSS version 20.

Results:

There were 179(56.8%) male infants. Fifty six (17.8%) were preterm. Three (1%) infants and 6(1%) SBD were lost to follow-up. The commonest defects were the cardiovascular (CVS) defects (n=398, 64.2%) followed by the central nervous system defects (n=52, 8.4%). The commonest CVS defects were atrial septal defect (ASD) (n=219), patent ductus arteriosus (PDA) (n=79) and ventricular septal defect (VSD) (n=48).

Forty-four (14%) infants died during infancy. They had a total of 141 defects and 79 out of them were lethal. The most common lethal defects were the CVS defects (n=44, 55.7%) followed by CNS defects (n=13, 16.4%). Among the 473 SBD found among live infants 134(28.3%), 71(15.0% and 268(56.6%) were completely corrected, partially corrected and uncorrected respectively. Among the completely corrected defects 77 were resolved spontaneously (including 43 ASD, 6 VSD, 24 PDA) and the rest were managed surgically (n=55) and medically (n=2). Among the infants diagnosed with CVS defects needing surgical correction (n=35), 23 underwent surgery and 5 of them died. Three infants among the rest of the 12 infants, died while awaiting surgery.

Conclusions:

The rate of correction of SBD among infants in Sri Lanka is suboptimal. There is a need to increase the health care services available to correct SBD in infants.

KEY WORDS

Structural birth defects, outcomes, Galle, Sri Lanka