

## Incidence, Pattern and Risk Factors of Congenital Heart Diseases in Neonates in a Tertiary Care Hospital, Egyptian Study

**Authors :** Gehan Hussein, Hams Ahmad, Baher Matta, Yasmeen Mansi, Mohamad Fawzi

**Abstract :** Background: Congenital heart disease (CHD) is a common problem worldwide with variable incidence in different countries. The exact etiology is unknown, suggested to be multifactorial. We aimed to study the incidence of various CHD in a neonatal intensive care unit (NICU) in a tertiary care hospital in Egypt and the possible associations with variable risk factors. Methods: Prospective study was conducted over a period of one year (2013 /2014) at NICU KasrAlAini School of Medicine, Cairo University. Questionnaire about possible maternal and/or paternal risk factors for CHD, clinical examination, bedside echocardiography were done. Cases were classified into groups: group 1 without CHD and group 2 with CHD. Results: from 723 neonates admitted to NICU, 180 cases were proved to have CHD, 58 % of them were males. patent ductus arteriosus(PDA) was the most common CHD (70%), followed by an atrial septal defect (ASD8%), while Fallot tetralogy and single ventricle were the least common (0.45 %) for each. CHD was found in 30 % of consanguineous parents Maternal age  $\geq 35$  years at the time of conception was associated with increased incidence of PDA ( $p= 0.45$  %). Maternal diabetes and insulin intake were significantly associated with cases of CHD ( $p=0.02$  &  $0.001$  respectively), maternal hypertension and hypothyroidism were both associated with VSD, but the difference did not reach statistical significance ( $P=0.36$  &  $0.44$  respectively). Maternal passive smoking was significantly associated with PDA ( $p=0.03$ ). Conclusion: The most frequent CHD in the studied population was PDA, followed by ASD. Maternal conditions as diabetes was associated with VSD occurrence.

**Keywords :** NICU, risk factors, congenital heart disease, echocardiography

**Conference Title :** ICGPPHD 2022 : International Conference on General Pediatrics and Pediatric Heart Disorders

**Conference Location :** Madrid, Spain

**Conference Dates :** March 21-22, 2022