Congenital anomalies in neonates in Fayoum Governorate, Egypt

Abstract

Background: The worldwide incidence of congenital anomalies (CAs) is estimated at 3–7%, but actual numbers vary widely among countries. Birth defects are the most common causes of infantile mortality, accounting for ~25% of all neonatal deaths.

Aims: To determine the prevalence of congenital anomalies in neonates in Fayoum Governorate; to classify malformations; and to clarify the association between congenital anomalies and possible risk factors.

Methods: A cross-sectional study was conducted on 1000 infants in the neonatal intensive care unit and outpatient clinics of Fayoum University Hospital and Fayoum General Hospital during August 2017 to April 2018. Detailed history, clinical examination and relevant investigations were performed.

Results: The prevalence of CAs was 7.4%. Major malformations accounted for 78.4% and minor malformations 21.6%. The most common CAs involved the cardiovascular system (32.4%), followed by musculoskeletal anomalies (18.9%), chromosomal anomalies (10.8%), anomalies of the central nervous system (9.5%), gastrointestinal tract (6.8%), genital system (5.4%), eyes, head and neck (5.4%), respiratory system (4.1%), multisystems (2 or more) (4.1%), and renal and urinary systems (2.7%). 82.4% of cases were from rural areas, 62.1% were male, 36.5% were female and 1.4% were ambiguous. 85.1% of neonates with malformations were full term.

Conclusion: Cardiovascular, musculoskeletal and chromosomal anomalies were the most common CAs in our study. Positive consanguinity, poor attendance at antenatal clinics, rural residence and multiparty were the most common risk factors associated with CAs.