Profile of children with Congenital Anomalies– Findings from a tertiary care setting in South Kerala

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Background: Congenital anomalies, also known as birth defects, include structural or functional anomalies of prenatal origin, resulting from an abnormality or defect that occurs during the development process of the foetus. The prevalence of congenital anomalies at birth varies worldwide, ranging from 1.07% in Japan to 4.3% in Taiwan. In India the prevalence is reported as 1.84%. WHO estimates show that nearly 295 000 newborns die within 28 days of birth every year, worldwide, due to congenital anomalies. Congenital anomalies cause disability which in turn affects the individual as well as the family and creates significant impact on health system. Gathering information about the prevalence and patterns of congenital anomalies is helpful to get baseline rates, recording changes over time, and for detecting the etiology of conditions. This leads to our study which is aimed to determine the pattern and profile of congenital anomalies in a tertiary care setting in South Kerala

Methods: Data from the clinical records during the year 2020 of a tertiary care centre in South Kerala was retrieved. All case records during the period were assessed for congenital anomaly. Children having neurodevelopmental disorders are regularly followed up in the centre for developmental assessments and various therapies. A team comprising of developmental Paediatrician along with therapists, and psychologists do the screening, assessments, therapy and referral services for children. The case records of children with congenital anomaly were identified by a Developmental Paediatrician and the data was retrieved. The data collected from the records included information on socio-demographic profile, maternal and birth history, developmental status, and the type of congenital anomaly. Data analysis was done using SPSS Version 26.

Results: Among 1791 children who had attended the various clinics of the centre, 76 children (4.24%) were having congenital anomalies. Among them 15.78 percent were diagnosed with Trisomy 21. Nearly 13 percent had Pes planovalgus. Nearly 12 percent were having Microcephaly and 9 percent of these children were having Dysmorphisms.

The mean age of the children was 24 months with standard deviation of 5.8 months. About 58 percent children were born with normal birth weight. 38.9 percent and 2.8 percent were born as

Low Birth Weight and Very Low Birth Weight respectively. Nearly 30 percent children were born preterm. About 59 percent of them were male children. Nearly 50 percent of them belonged to BPL category. Nearly 60 percent belonged to Hindu religion. 40 percent of mothers and 26 percent of fathers were having graduate or more level of education. More than three fourth of the mothers were unemployed. Nearly 65 percent children were from the extended or joint families. Majority (86.6%) were residing in rural areas. Most frequent antenatal risk factor was gestational diabetes (6.58%) and hypertension (6.58%). The children were screened using Trivandrum Developmental Screening Chart (TDSC) for developmental delay. It was seen that 69 percent children were having developmental delay.

Conclusions

In this tertiary care setting 4.24% children attending clinics had congenital anomalies of various types. This study identifies the pattern of congenital anomalies in a tertiary care setting in Kerala. Further studies looking into the magnitude and spectrum of congenital anomalies in clinic settings as well as in community is needed. Prevention and early detection strategies could be employed. Social security mechanisms, care and treatment shall be made accessible and available to these children for their improved outcomes.