

ABSTRACT

BACKGROUND: The pattern of congenital oral and craniofacial anomalies (CFAs) in the Kenyan population remains unknown. The few studies on wholebody congenital anomalies in Kenya and other African countries have suggested that the pattern of anomalies may be significantly different from those reported in other races worldwide. Kenyan studies have reported on anencephaly, hydrocephalus, encephalocoeles and cleft lip and palate with no mention of the other oral and craniofacial anomalies such as astomia, aglossia, microtia, or preauricular sinuses and tags. Therefore, the pattern of occurrence of these anomalies needed to be established.

OBJECTIVE: To describe the pattern of occurrence of CFAs at two hospitals in the city of Nairobi.

DESIGN: A descriptive cross-sectional study.

SETTING: Kenyatta National Hospital (KNH) and Pumwani Maternity Hospital (PMH).

SUBJECTS AND METHOD: The study was done from November 2006 to March 2007. All mothers who delivered at the two hospitals were consented for interview and examination of their babies. All births were physically examined within 48 hours by the investigators for any anomalies from head to toe and intra-orally using a clinical examination form. Anomalous infants were classified for type, location and magnitude of anomalies. Data were analysed to determine the association of these anomalies with ages of mothers, gender, weight, birth order, mode of delivery and birth status of the babies using the statistical package for social science (SPSS) software version 12.0 and Epilinfo package. Descriptive and inferential statistics were done using the χ^2 and Fisher exact tests.

RESULTS: During the study period 7989 babies were born in the two hospitals among whom 4264 (53.5%) were males and 3721 (46.6%) were females and 4 (0.1%) had ambiguous external genitalia. Total whole body anomalies were 256 (3.2%) among all births. Anomalous males were 142 (1.8%) and females were 110 (1.4%) of all the neonates. The most common single anomaly was preauricular sinus constituting 34 (4.3/1000) of the total births, followed by extradigits at 22 (2.8/1000), then talipes at 20 (2.5/1000) of total births. Total CFAs were 146, comprising 57.3% of whole body anomalies and 1.8% of the total livebirths. CFAs were more common in female livebirths (1.4%) than the male (1.0%) livebirths. However, a total of 23.3% of stillbirths had CFAs, with lesions manifesting more commonly in the males (16.5%) than the females (6.8%). The commonest CFA was preauricular sinus 0.4% (4.3/1000 births) followed by hydrocephalus at 0.19% (1.9/1000) then cleft lip and palate and preauricular tags at a prevalence of 1.6/1000 and 1.5/1000 respectively. Anomalies were significantly common in the first birth order and tapered off steeply past the fifth born. Out of a total of 5930 spontaneous vertex deliveries (SVDs) 148 (2.5%) had anomalies and out of 2059 caesarean sections (CCSs) 103 (5.0%) had anomalies. Major CFAs occurred at 0.6% (6.1/1000) in the livebirths and at 65.3% of the stillbirths while single minor anomalies occurred at a rate of 1.1% (11.3/1000) of the total births. Multiple major anomalies were common in stillbirths (85.7%).

CONCLUSION: The commonest CFAs were preauricular sinus, hydrocephalus and clefts of the lip and palate. The anomalies were significantly common in the first and second birth-order, low birth weight babies, in babies delivered

via caesarean section and in male stillbirths, comparing well with the findings by other investigators in the literature. Minor CFAs were significantly associated with other clinically recognizable anomalies all over the body. Major CFAs were fatal in more than half the time within 48 hours perinatally.