

**PATTERN OF OCCURRENCE OF CLEFTS OF THE LIP AND/OR PALATE  
AMONG KENYANS PRESENTING FOR TREATMENT AT SELECTED  
HOSPITALS**

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## ABSTRACT

**Background:** Cleft lip and /or palate is a severe birth defect resulting from improper migration of the ectomesenchymal tissue. The aetiology of clefting is multifactorial with environmental and genetic factors being implicated. There is racial heterogeneity in the pattern of occurrence of cleft lip and /or palate with a paucity of literature regarding African populations .

**Objective:** To determine the pattern of occurrence of cleft lip and/ or palate among Kenyans presenting at selected hospitals for treatment.

**Design:** A descriptive cross-sectional study.

**Settings:** Kenyatta National Hospital (KNH), Moi Referral Hospital(MRH), Nakuru Provincial Hospital (NPH), New Nyanza Provincial Hospital(NNPH) and Meru District Hospital(MDH).

**Materials and methods:** A convenient sample of 396 subjects was included. All patients who met the inclusion criteria were included in the study. Data were collected by examining the subjects and completing a clinical examination form (appendix 1). The training of assistants included calibration to check inter-examiner variability. A modification of Veau's and the Kernahan classification systems was used to define the nature of a cleft(appendix 2). The data were presented in the form of charts and tables. The results were analyzed using the Statistical Package for Social Sciences (SPSS) 10 (SPSS Inc. Chicago, Illinois, USA). The Chi-square test was used to test for significance of association among variables.

**Results:** This study included 396 subjects, among whom 236 were male and 160 female. The age range was 4 weeks to 54 years (mean=  $4.8 \pm 6.96SD$ ). The distribution of cleft lip and palate: cleft lip alone: cleft palate was 5.3: 4.9: 1. The male: female ratio among cases with cleft lip alone was 1.12: 1, while among those with cleft lip and palate 1.71: 1 and for those with cleft palate alone 2.89: 1. Left-sided cleft lip and / or palate was more common than the right- sided ones. Syndromes associated with clefts included the Van de Woude (4), Pierre-Robin Sequence (4), Treacher-Collins (1), Apert's (1), Ectodermal

dysplasia (1) and Down's (1). A hereditary trait was apparent among 67(16.9%) of the cases.

**Discussion:** The distribution of the various clefts follows a pattern that is different from that seen in other areas, however, this pattern closely resembles what has been described in Nigeria. The semblance of the African studies may have a racial/ geographical basis. The relatively low proportion of cleft palate may be the result of differential influence by environmental teratogens. Hereditary traits and syndromic clefts were distributed among the cases as has been seen in studies elsewhere.

**Conclusion:** *There is considerable variation in the pattern of cleft lip and /or palate as seen in this study and those reported elsewhere.*

**Recommendations:** There is need for the introduction of both a national registry for the documentation of these cases and the initiation of community education programmes on cleft lip and/ or palate.