



A Prospective Survey of Patients With Cleft Lip and Palate in Kumasi

Investigation en perspective des patients avec lèvres et palais fendus à Kumasi

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ABSTRACT

BACKGROUND: There has been a steady increase in the number of patients with cleft lip and palate being treated at our hospital.

Objective. The aim of the study was to determine the socio-demographic characteristics of patients with cleft lip and palate as seen in a hospital setting.

METHODS: New and consecutive patients with cleft lip and palate attending the maxillofacial clinic during the period between February 2003 and January 2004 were prospectively surveyed. Data including age of child, gender, address, type of cleft, associated birth anomalies, family history of cleft, mother's age at birth of child, mother's occupation, and mother's smoking and drinking habits were collected and analyzed using a SPSS package.

RESULTS: Seventy-four new cases of cleft lip and palate were seen comprising 33 males and 41 females. Their ages ranged from one day old to 21 years with an overall mean age of 10 months. Cleft lip alone (57%) was the most common presentation. Seventy percent of the mothers were less than 30 years of age. Majority (76%) lived in the Ashanti Region, i.e. within less than 80 kilometres from the clinic. No patient had a family history of facial cleft. Ninety-three percent of the mothers were either unemployed or worked in jobs considered as low earning which included dressmaking, hairdressing, peasant farming, and petty trading. None of the mothers smoked or drank alcohol either before or during the pregnancy.

CONCLUSION: Cleft lip and palate was more commonly seen in low income families. The mothers were found to be relatively young. None of the patients and mothers had a family history of cleft. A larger population-based study is warranted to further clarify these findings. *WAJM 2007; 26(1): 14 – 16.*

Keywords: Cleft lip; cleft palate; socio-demographics, Kumasi

RESUMÉ

Contexte: De plus en plus de patients avec lèvres et palais fendus visitent notre hospital.

Objectif: Le but de cet étude est de déterminer les caractéristiques socio-démographiques des patients avec lèvres et palais fendus qui visitent notre hospital.

Méthodes: Les nouveaux patients qui ont visité la la pavillon maxillofacial pendant les mois de Février 2003 à Janvier 2004 sont mis en étude. Les données telles que l'âge de l'enfant, le genre, l'adresse, genre de fente, anomalie de naissance associée, histoire familiale de la fente, l'âge de la mère lors la naissance de l'enfant, fonction de la mère, si la mère boit ou fume étaient prises et analysées par le logiciel SPSS.

Résultats: Soixante quatorze nouveaux cas de lèvre et palais fendus étaient obtenus comprenant 33 garçons et 41 filles. L'écart d'âge était d'un jour à 21 ans avec une moyenne âge de 10 mois. Le paramètre lèvre fendue (57%) était le plus commune. Soixante dix pour cent des mères avait moins de 30 ans. La majorité vivait dans la région d'Ashanti, moins de 80km du centre hospitalier. Aucun patient n'avait une histoire familiale de fente. Quatre vingt treize pour cent des mères sans emploi ou avaient des occupations sous payées telles que, la couture, la coiffure, agriculture et petit commerce. Aucune des mères ne buvait ou fumait avant la grossesse.

Conclusion: Les lèvres and palais fendus sont fréquemment observés dans les familles avec peu de moyen. Les mères étaient relativement jeunes. Aucun des patients et mères n'avaient une histoire familiale de fente. Une étude de grande envergure clarifiera ces résultats. *WAJM 2007; 26(1): 14 – 16.*

Mots Clés : Lèvre fendue, Palais fendu, Socio-démographique, Kumasi.

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INTRODUCTION

There is a limited number of published epidemiological or clinical studies from Africa on cleft lip and palate¹⁻³. The few studies suggest that cleft lip alone is more common than either cleft palate alone or combined cleft lip and palate. Cleft lip is more commonly seen in females while combined cleft lip and palate appears more common in males. Studies from outside Africa, however, suggest that cases of either cleft palate alone⁴ or combined cleft lip and palate^{5,6} are predominant.

The widespread poverty in African countries such as Ghana predisposes pregnant mothers to an increased risk of nutritional deficiencies including vitamins and folic acid deficiency, thus leading to an increased risk of birth deformities like cleft lip and palate⁷. Other social habits like smoking, alcohol consumption, and the use of non-prescription medications by pregnant mothers have been reported to be associated with an increased risk of cleft lip and palate^{8,9}.

An earlier retrospective report from our hospital showed that there was a steady increase in the number of children operated upon for cleft lip and palate¹⁰. However, not much was known about the socio-demographic characteristics of the patients. The purpose of this study, therefore, was to determine the socio-demographic characteristics of new patients and families with cleft lip and palate.

PATIENTS AND METHODS

This was a descriptive clinical study of consecutive newly diagnosed patients with cleft lip and palate attending Komfo Anokye Teaching Hospital, Ghana, between February 2003 and January 2004 inclusive. The necessary ethical approval to undertake the study was obtained. The purpose of the study was explained to the parent or patient and consent was obtained for inclusion in the survey. Information on residential address, age, gender, diagnosis, mother's age at birth of patient, and mother's occupation was collected by a nurse on specially designed forms. The only exclusion criterion was the refusal of a parent or patient to participate. Data was collated and analyzed using a SPSS package.

Average values are given as mean (SD).

RESULTS

Seventy-four patients with cleft were seen during the 12-month period under study comprising 33 males and 41 females. They came mainly from the northern and middle zones of Ghana with the majority (76%) living within 80 kilometres of our hospital in the Ashanti Region. None of the patients or mothers had a family history of facial cleft.

Forty-two (57%) of the patients (male 18, female 24) had cleft lip alone; twelve (16%) had cleft palate alone (male=6, female=6); and 20 (27%) [9 males and 11 females] had a combined cleft lip and palate (Figure 1). One of the patients with combined cleft lip and palate also had an oblique facial cleft. Two of the children with combined cleft lip and palate also had syndactyly affecting all four limbs.

Seven of the 42 cases of cleft lip were bilateral and 35 were unilateral.

Twenty-six (74%) of the unilateral cleft lips occurred on the left side of the face.

The patients seen during the period were made up of 71 children and three adults who ranged in age from one day old to 21 years. Their overall mean age was 10 months. The mean age of patients with cleft lip was 5.3 months; 2 months for combined cleft lip and palate; and 2.5 years for isolated cleft palate.

The mothers' ages varied from 16 –46 years with an average of 27(6.7) years. Seventy percent of the mothers were below 30 years of age and (93%) of them were either unemployed or worked in jobs associated with low income in the informal sector such as petty trading, dress making, hairdressing, petty trading, or peasant farming (Table1). None of them smoked or consumed alcohol before or during the pregnancy. None of the patients and mothers gave a family history of cleft.

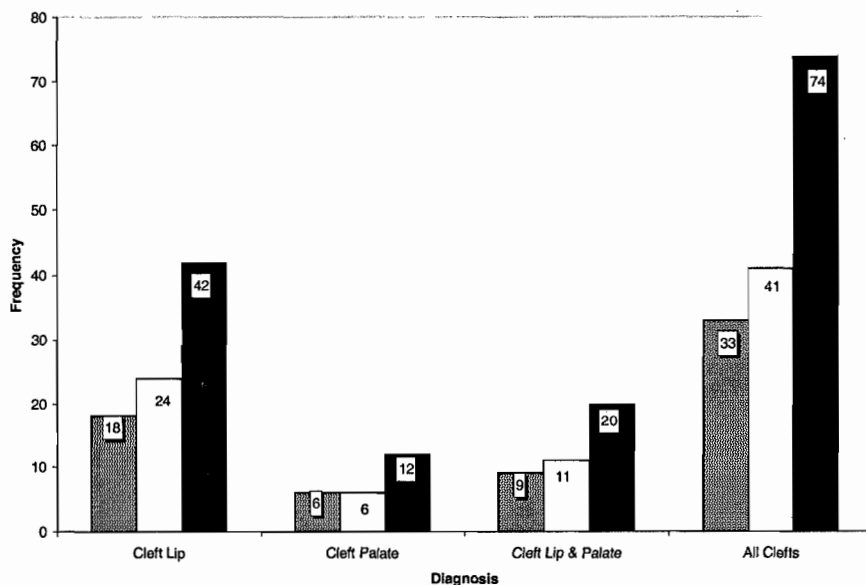


Figure 1. Distribution of Patients by Sex and Type of Cleft
 ■All subjects; ▨, Male and □, Female.

Table 1: Distribution of Mothers by Occupation

Occupation	Number (%)
Trader	27 (36.5)
Unemployed	12 (16.2)
Farmer	11(14.7)
Housewife	7 (9.5)
Hairdresser	6 (8.1)
Seamstress	6 (8.1)
Teacher	3 (4.1)
Nurse	2 (2.7)
All occupations	74(100)

DISCUSSION

The distribution of the different types of cleft in this study showed the predominance of cleft lip alone as has been observed in other hospital-based studies from Africa^{2,3}. Population-based studies are warranted to establish the true incidence of the different types of facial cleft in Ghana.

The age range of the patients was varied and was similar to that of a report from Nigeria². In Ghana, several cases of cleft palate are missed at birth and only become evident when the newborn does not feed well or discharges feeds through the nose¹⁰. This delay in diagnosis of cleft palate is more likely to occur in children delivered at home by traditional midwives. In the case of cleft lip, which is evident at birth, the limited availability of services, the lack of awareness and the high cost of treatment, could all contribute to the observed late presentation.

The majority of patients lived within 80 kilometres of our hospital in the Ashanti Region. However, nearly 25% of them traveled long distances from five other regions, with some traveling as far as 500 kilometres to seek treatment. This was partly due to the limited availability of specialist cleft services outside the two major teaching hospitals in the country.

None of the mothers reported smoking cigarettes or consuming alcohol

during pregnancy. In contrast mothers of children with cleft from Thailand⁸ and Malaysia⁹ admitted to smoking and ingesting medications, including analgesics and traditional herbal preparations before and during pregnancy. The use of herbal preparations and over-the-counter medications is also common in our community, though this information was not captured in our study.

In general the mothers were young, with an average age below 30 years, which is comparable to a similar group of mothers of children with cleft anomalies from Mexico⁶. Majority of the mothers were in low income occupations and were less likely to have had access to antenatal vitamin and folic acid supplementation, which are known to offer protection against birth defects.

Isolated cleft lips were more common than cleft palate alone or in combination with cleft palate and females were more commonly affected than males. Orofacial clefts were more commonly seen in patients whose mothers were relatively young and had a low income.

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