ENDEMICITY OF CLEFT LIP/PALATE IN A RURAL COMMUNITY IN SOUTH-EAST GHANA

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ABSTRACT
The causal factors and magnitude of malformation of cleft lip (hare lip) amongst some inhabitants of Wudoaba, a village in south-eastern Ghana was investigated because most women visiting the night market in the village claimed some of their counterparts had cleft lip (hare-lip) while some spoke through their nose. The market is called a "ghost market" due to the nasal sound produced by the speech of the people. Using purposive and accidental random sampling technique and questionnaire interviews, some citizens, traditional rulers and opinion leaders were interviewed. Of the 13 interviewed three were females and 10 males with ages between 20 and 70. Secondly, 11 of the13 respondents were married, with one being single and one co-habiting. Out of the 12 that were "married", five were not related, six were cross-cousins and one was a linear-cousin. Sixteen of the market women had "nasal ghost speeches" and nine had cleft lips. The market women claimed that about 20 of their colleagues also had cleft lips. Wudoaba may be cleft endemic and the cause of malformation could be genetic. Most of the victims were treated as social outcasts hence the "cover" night markets. A vigorous health education awareness campaign is needed and for those with the disease to undergo plastic surgery.

Keywords: *Cleft lip/palate, survey, endemic, Wudoaba*

INTRODUCTION
Cleft lip/palate constitutes a major congenital anomaly in newborns (Tahir *et al*, 2006). The upper lip and palate develop from tissues on both inferior and superior surfaces of the tongue in the early stages of human gestation. These tissues will normally grow towards one another and join up in the middle. For some reasons the upper lip tissues fail to join up thus creating a gap or a cleft in the lip. A single gap (cleft) may occur below one or other nostril (unilateral cleft lip). Sometimes a cleft occurs below each nostril (bilateral cleft lip). Similarly, this occurrence may be in the roof of the mouth (palate) giving

rise to cleft palate which may also be unilateral or bilateral. Various combinations of the clefts in the same patient may exist (Tahir *et al*, 2006, (Vallino-Napoli *et al.*, 2004).

In the United Kingdom and United States of America, about one in every 700 live babies is born annually with this anomaly. An epidemiologic study in Victoria, Australia showed that the prevalence of isolated cleft lip/palate in Victoria was parallel to other population-based studies of the same conditions (Vallino-Napoli *et al.*, 2004; McLeod *et al.*, 2004).

Tahir *et al* (2006) indicated that in Nigeria the incidence of cleft lip/palate is 1:1000 live births following a prospective study of all cleft lip/palate patients in three hospitals: Federal Medical Centre in Azare, Federal Medical Centre in Gombe and University of Maiduguri Teaching Hospital between 2003 and 2005 in which they attended to 37 patients ranging from 1 to 30 years.

In Ghana, the two premier teaching hospitals, Korle-Bu and Komfo Anokye, have set up multidisciplinary cleft lip/palate clinics but are mainly devoted to corrective surgery and counseling. The present study became necessary following reports that in south eastern Ghana, in a village called Wudoaba, local folklore and myths suggest that there might be some sort of endemicity of cleft lip/palate in the community.

A clue to this assertion is the regular night market within the cluster of villages which does not exist elsewhere in the region. There must therefore be some special reason why this system of night business exists in this small community under the cover of total darkness except for the use of local kerosene "miniature lamps".

Most women who live outside the village and patronize the night market claim that some of their colleagues had hare lip and spoke through their nose. To describe the problem, they call the market *"ghost market"* due to the nasal sound produced by the speech of the people.

This study was therefore to investigate some of the possible causes and the magnitude of cleft lip/palate in the Wudoaba cluster of villages. It is expected that the Wudoaba community could give an overall clue to the magnitude of the problem in Ghana.

MATERIALS AND METHODS

A purposive and accidental random sampling technique was used in administering prepared questionnaires to the village community in general irrespective of age and social status and following an interview schedule for the chiefs and their elders. The purposive method was chosen following pre-information from the market women and difficulty in agreeing on a specific criterion for the selection of respondents.

Study Area

Wudoaba is a cluster of villages in the Volta Region of Ghana, under the Aflao Traditional Area, in the Ketu District. It is close to the Ghana-Togo boarder and lies between latitude 06° 09' 21" and longitude 01° 05' 48". It has a population of about four thousand inhabitants with one-third being children (Ghana Statistical Service, 2000). Wudoaba was founded in 1816 by migrants from Viepe, a suburb of Aflao, who were in search of farm lands (Personal Communication, Chief of Viepe, Aflao, 2005).

The predominant occupation of the people is subsistent cassava and maize farming. They have a seasonal market for the production of "gari" (made from cassava). The village has only one basic school with 1,200 pupils. Majority of the elderly are illiterates. There are no health facilities in the area. Patients have to travel to nearby Dzodze, Denu or Aflao to assess health care.

The Wudoaba community has three chiefs, one of whom is the Secretary to the Paramount Chief of the Aflao Traditional Area and doubles as the Head chief and final authority in the village.

RESULTS AND DISCUSSION

Age Distribution of Respondents

Out of the expected 20 respondents only 13 responded. Of these, three were females and 10 males with their ages ranging between 20 to 70 years (Figure 1). Majority (30.8%) of the respondents were elderly (50-59) followed by the 20-29 age group (23.1%).

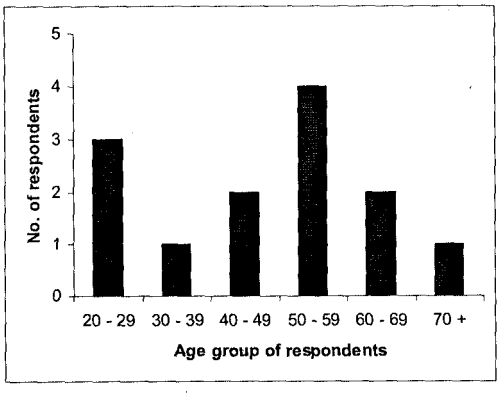

Fig. 1: Age distribution of respondents

Marriage Contracts

Out of the 13 respondents, 11 were married, one single and one was co-habiting. Additionally, out of the 12 that were "married" five were not-related, six were cross-cousins and one was a linear cousin (Figure 2). Forty-five percent of all marriages in the village were polygamous 58.3% of the active reproductive age group were all engaged in cross-cousin and linear cousin marriages with 38.5% of the marriages having no blood relations. Intra marriages were thus dominant in the Wudoaba community (Figure2).

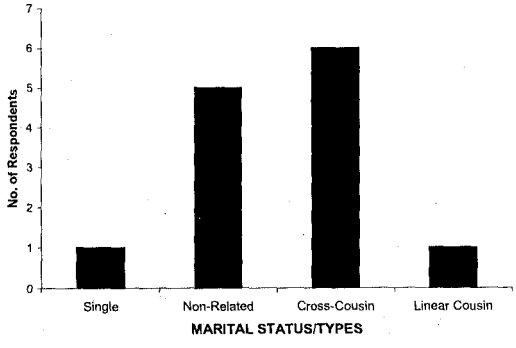

Fig. 2: Distribution of Marital Status/Types

Additionally, most of the identified cleft lip/palate victims were all products of cross-cousin marriages which pre supposes that with time cleft patients could increase as a result of the marital pattern in the village. Cross-cousin marriages were highly preferred and culturally accepted in Wudoaba.

An intensive education may be needed to help explain its implications on the potential offspring of such marriages. The upheld norms and values of the people of Wuduoba, which has been practiced for centuries as a culture may be difficult to change in a day especially when majority of the people are illiterates.

Formal Education and Employment

More than half, 53.85% of the respondents were illiterates, with 30.77% having had primary and 15.38%, tertiary education. Most inhabitants of the Wuduoba community were engaged in low income subsistence farming.

Market Visitations

During three disguised night "secret" visits to the market, it was noted that 16 of the market women could have cleft palate because of their *"nasal ghost speeches"*. A total of nine adult women were also physically observed to have cleft lips. It was also confirmed by some of the market women that about 20 of their colleagues had cleft lips.

Community Perception/Knowledge of the Cause of Cleft Lip/Palate

Although not certain of the exact cause of the cleft/lip palate deformity, majority (69.23%) of the respondents had some knowledge of cleft lip/palate deformity and had either seen or taken

note of a persons with the ***"nasal ghost speech".*** Members of the Wudoaba community also believed that the deformity could be genetic, a curse from God, an evil attack or the effects of black magic (juju), the presence of fibroid in the uterus before conception, a normal sickness or the reincarnation of an accident victim.

The community's understanding of genetic was that it was only a "mark" transferred from mother to child and that a child would be a victim if the disease was visible on the mother. This explains why men were not seen to be capable of transferring it to their children.

Spiritually, it was either a curse from the creator as a result of past wrong doings of the couples or the effects of black magic (juju) on the people. To others, it was the reincarnation of persons who died through an accident. The cleft lip/palate was therefore the effect of the injury from the accident.

Women who had fibroids before conception were also perceived to be more likely to give birth to children with clefts. In their view, the fibroid would eat-up the affected part of the victim. However, an undiscriminating group of respondents believed that cleft lip/palate was a normal sickness like any other.

Socially, cleft/lip palate victims experienced social isolation, depression, family and societal rejection which often led to further withdrawal from society, disqualification from the royal lineage or ascension to the throne and withdrawal from social gatherings including school.. The cleft/lip palate deformity among the people of Wudoaba was seen as a disgrace to the society hence the covering up of its existence in the village and explains why most of the victims did not appear in public during the day.

Case Presentations

Case 1: Cleft Lip

An 11-year-old boy, "X" (real name withheld), born with a right unilateral, complete cleft lip was rejected soon after birth by both parents who were cross-cousins. Presently, he lives with his paternal grandfather. Although from a well to do family and could be sent to one of the best schools, the boy did not want to have anything to do with school because of the ridicules from his age mates. He had no idea what could become of him among other children whom he was so different from due to the deformity. He said he was embarrassed when other children followed him whenever he was sent on errands. In his own words, he said; "I want to be like the other children of my age." (Plate 1a).

Plate 1b shows the same boy as in Plate 1a after the cleft surgery. The surgery was performed free of charge at the South Tongu District Hospital, Sogakope, and was used as an exhibit during the Health Education Campaign.

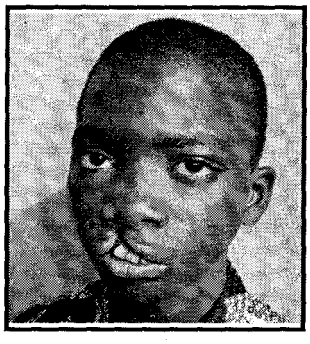

Plate 1a: Right unilateral, complete cleft lip in an 11 year-old boy

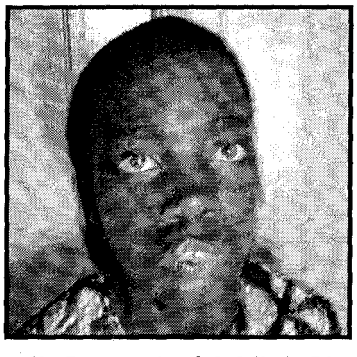

Plate 1b: Post repair of cleft lip in Plate 1a

Case 2: Cleft Palate

In the only basic school at Wudoaba was a 10-year-old girl with a cleft palate. Though quite advanced in age, she could not speak clearly to the hearing of others. To her embarrassment, she was mostly described as "the girl who speaks through her nose" or worse still the *"ghost child"*. To a large extent this had affected her contribution to studies in class. Unfortunately, her parents were cross-cousins. Incidentally, the biological father of this girl when first contacted by the research team denied being her father. On another occasion he confessed and said that he lied to the team because of the public ridicule that was meted to him in the community who nicknamed him *"the ghost child's father"*.

Plate 2a: A 10 year-old school girl

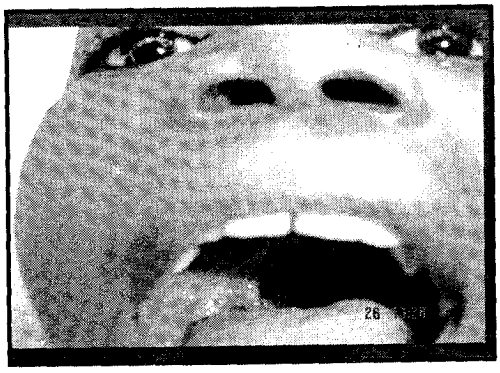

Plate 2b: Complete soft palate cleft in the girl in Plate 2a

Cases 3 and 4

These two women were 33 and 36 years of age, respectively. They had lived with the cleft all these years and due to public ridicule, they hardly associated with others. The team was able to meet them upon special arrangements with the conviction that, the team would help them have their cleft lips repaired.

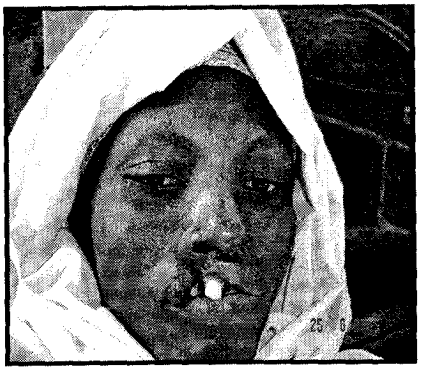

Plate 3: Right unilateral, incomplete cleft lip in a 33 year-old lady

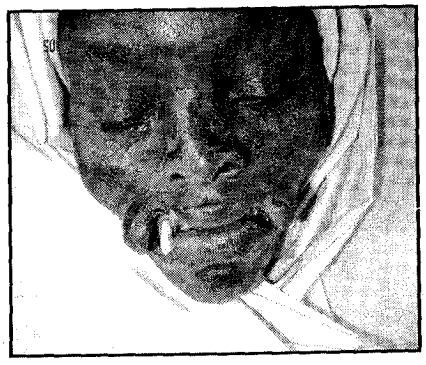

Plate 4: Bilateral, incomplete cleft lip in a 36 year-old lady

Case 5

A 53 year old man believed that he was a reincarnated person. To him, the cleft was as a result of an accident he had in his previous life which led to his death. But since he had not accomplished his task on earth he had to come back to life and so had been born with the cleft

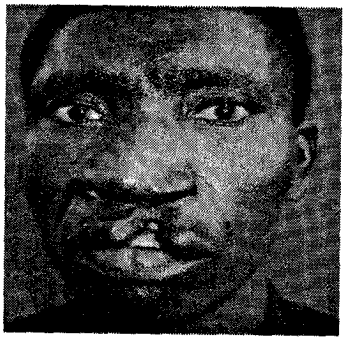

Plate 5: Left unilateral, incomplete cleft lip in a 53 year-old man

CONCLUSION

From the study, Wudoaba could be described as a cleft endemic community and that the main cause of the deformity could be genetic as a result of cross cousin marriages. The victims were treated as social outcasts by some relations.

RECOMMENDATIONS

Rigorous survey coupled with public health education would be needed to determine the exact magnitude of the cleft lip/palate malformation in the Wudoaba village communities. An endowment fund has to be set up to help those with the deformity undergo plastic surgery.

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