Journal of Current Medical Research and Opinion
Received 08-03-2024 | Revised 09-03-2024 | Accepted 29-03-2024 | Published Online 31-03-2024

DOI: https://doi.org/10.52845/CMRO/2024/7-3-6 ISSN (O) 2589-8779 | (P) 2589-8760
CMRO 07 (03), 2202-2206 (2024)

Original Research

Cleft Lip and Cleft Palate: Our Port Harcourt Experience.

Gbeneol TJ | Ovusike AK.

Plastic and Reconstructive Surgery Unit, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria.

Abstract:

Background: Of all congenital malformations, clefts of the lip and palate are the most frequent, second only to club foot in terms of frequency in the craniofacial malformations. This condition is multifaceted, so clinical management is multifactorial and requires a team of professionals with a huge financial burden. The Smile Train, a US based non-governmental, non-profit organisation fully sponsors the management.

The aim of this study was to analyze the data of our Cleft lip and Palate patients and note incidence and pattern of cleft lip and palate presentation to our hospital between the period 2001 to 2005.

Material and Method: A retrospective review of all cases of cleft lips and cleft palate from June 2001 to May 2005 seen at Port Harcourt was carried out**:** The data of patients who visited the hospital within the period under review were collected and analyzed. The different cleft lip and palate presentations were categorized with respect to types and gender. The data were analyzed and tabulated.

Result: Cleft lip and palate presentation with respect to gender in table 1 shows increased incidence in males than females. The most common occurrence is complete cleft of soft palate (30.51%) and incomplete cleft lip (30.51%). The least occurrence was complete cleft lip.

Conclusion: It would be ideal for the cleft team to have a variety of skills. Even when there are additional lingering issues, the poverty level of our patients usually restricts our management to surgical treatment of this ailment.

Introduction

A split or opening in the upper lip and/or the palate (the roof of the mouth) is known as cleft lip and palate. It happens when the lip and palate don't correctly fuse together during embryonic development[1]. A tiny notch in the top lip to a full separation of the lip and palate that extends into the nose are all possible outcomes of this illness. One or both sides of the face may be affected by cleft lip and palate, which varies in severity[2]. Males are more likely than females to experience it, and it can happen alone or in conjunction with other anomalies to form a syndrome. Although the

precise etiology is unknown, environmental and genetic factors may have a role in the development of Many functional and aesthetic issues may arise from the disease. Because it might be difficult to form a suitable seal around the nipple due to the lip's separation, infants with cleft lip may have trouble feeding. A cleft palate can cause ear infections and hearing loss in addition to interfering with the development of speech by making it difficult to generate certain sounds. Clef lip and palate demands a multidisciplinary approach to treatment and usually calls for a team of doctors. In order to seal the cleft and return the body to normal function and appearance, surgery is typically done in the first few months of life. As the kid grows, more procedures might be required to repair any lingering abnormalities and enhance speech. Apart from surgery, kids who have Children with cleft lip and palate need continuous treatment from speech therapists, orthodontists, and other medical specialists in addition to surgery in order to solve eating issues. speech difficulties and even dental problems[4]. Children with cleft lip and palate can have healthy, happy lives if they receive the right care and assistance.

People who are born with orofacial clefts in many underdeveloped countries have little to no access to surgical correction. They might not work or go to school, and they are frequently rejected by most communities. This is partially brought on by ignorance of the condition's causes and methods of treatment. If treatment is not received, the individual could struggle with a variety of problems[5]. Food, speech, hearing, ear infections, and psychosocial impacts are a few examples of these. Many problems could result from this, many people who have clefts experience low self-esteem usually live in isolation. With different types of treatment, a tiny percentage of well-adjusted people will be able to overcome the problems associated with a cleft issue. Most are able to conduct regular lives and fit right in with society. Surgical outreach missions are still very much needed, though. A youngster with cleft lip or palate can look and function normally on their face if given the chance. These factors make cleft lip and palate a problem that we feel obliged to solve.

There is historical documentation of cleft lip and palate incidences. A cleft lip was not surgically repaired until the 20th century, despite the fact that the earliest attempts to do so were recorded in 390 BC. In 1764, the first cleft palate repair was documented to have been done. Nevertheless, it took until the 20th century for palate surgery to become widely accepted. It is often known that people with the abnormality did not have good outcomes in prehistoric communities[4]. They were frequently slain or left behind. In other cases, they were social outcasts with little chance of living normal lives because they couldn't eat or speak normally.

This study was aimed primarily to evaluate and analyze the incidence of cleft lip and palate between the period 2001 to 2005.

Material and Method:

A retrospective review of all cases of cleft lips and cleft palate resulting from congenital defect between June 2001 and May 2005 seen at UPTH was carried out**:** The data of patients who visited the hospital within the period under consideration (2001 - 2005) were collected and analyze. The different cleft lip and palate presentations were categorized with respect to types, gender, syndromic and non-syndromic. The data were analyzed and tabulated.

Result:

The most common occurrence is complete cleft of soft palate (30.51%) and incomplete cleft lip (30.51%). The least occurrence was complete cleft lip. In the period of this study, 100 cleft lip (CL) and cleft palate (CP) patients (59 males, 41 females resulting to male:female ratio of 1:0.725) which had surgical case and treatment of the lip or palate. Out of the 100 patients under treatment, CL patients were 37(45.76) for males, 20(48.78) for females, cleft palate CP patients were 32(53.51) for males, 21(51.22) for females.

Table 1 shows Cleft lip and palate presentation based on gender. There is a slight male preponderance, for complete cleft of the lip. The male to female ratio of incomplete cleft is 1:1.5. Within the 5 years period of the study 20,034 patients were seen; this brings the incidence of cleft to 2 per 1,000 in the Port Harcourt population.

Table 1: Different clinical presentationsof Cleft lip and palate and percentage of occurrence according to gender

Clinical Condition	Males	Percentage of Males (%)	Females	Percentage of Females (%)
Complete cleft of hard palate	14	23	9	21.95
Complete cleft of soft palate	18	30.51	12	29.27
Complete cleft lip	9	15.25	7	17.07
Incomplete cleft lip	18	30.51	13	31.71

Discussion:

Cleft lip and cleft palate are the most common craniofacial anomalies, occurring disproportionately across the world. Patients with cleft lip and palate usually face myriads of problems, aesthetic compromise always being the most noticeable challenge. The esthetic obstacle in children with cleft lip and palate may often lead to various types of psychological distress on the parents[5] who struggle with the psychology of acceptance of the child. Some parents struggle with the thought of abandonment, infanticide and couples struggle with the blame game of guilt and who is responsible for the birth defect. Some attribute it to familial curses, and this is more obvious as clefts can be familial. If one child or one parent has CL/P, then there is a 4% risk to subsequent children. If two children have CL/P, the risk increases to 9%. If one child and a parent have CL/P, then the risk increases to 17%. For patients with syndromic etiologies for CL/P, such as Van der Woude syndrome, the risk to subsequent children follows Mendelian inheritance patterns. Therefore, if one parent has Van der Woude syndrome (autosomal dominant inheritance), the risk to subsequent children being born with CL/P is 50%[7].

Among the most prevalent birth defects worldwide are cleft lip and cleft palate. These defects are stigmatized in practically every society, despite the fact that they are easily remedied in children. Undoubtedly, the obvious deformity of the upper lip causes emotional distress to parents and is recognized as a potential indicator of child maltreatment. Speech and feeding are impacted, regardless of whether the deformity is a cleft of the lip or cleft of the palate, and this can cause social and emotional issues for the kid who is affected[5]. A cleft is characterized by the partial separation of the lip's two sides; it can range from a tiny depression to a total lip separation that typically affects just one side. An aperture in the palate that starts in the midline and extends back to encompass the uvula and soft palate is known as a cleft of the palate[5]. It happens when both sides of the palates do not meet, and it may leave a hole that opens up into the nasal cavity. Due to hypernasal and hazy speech practically all the time, feeding issues may arise as the majority of milk may come out of the nose. In affluent nations, the care of patients with cleft lip and palate (CLP) is multidisciplinary[6,8] and may last the patient's whole life.[8]. However, despite reports of poor facial development and lingering speech and hearing problems from CLP therapy in the developing world, a large portion of the focus in these nations is on surgical repair of the lip and palate.[9] Since 2000, a cleft care team had began in Aminu Kano Teaching Hospital (AKTH) in Kano. In order to give its cleft patients, access to free surgery, AKTH teamed up with Smile Train, a non-governmental organization, in 2006. Initiated at AKTH, a cleft team included social welfare departments, otolaryngologists, anesthetists, and maxillofacial surgeons. Later on, this original group was augmented with pediatricians, clinical speech pathologists, orthodontists, pedodontists, and psychologists[10].

In the period of this study, 100 cleft lip (CL) and cleft palate (CP) patients (59 males, 41 females resulting to male:female ratio of 1:0.725) which had surgical case and treatment of the lip or palate. Out of the 100 patients under treatment, CL patients

were 37(45.76) for males, 20(48.78) for females, cleft palate CP patients were 32(53.51) for males, 21(51.22) for females. This pattern of distribution of this result were inline with the study Akinwale and colleagues[5], during the period of their review, 155 CL and palate patients (80 males, 75 females giving a male: female ratio of 1:0.938) had surgical repairs of either the lip or palate. Of the 155 patients managed, CL patients were 83 (53.55%), CLP patients were 45 (29.03%), while 27 (17.42%) patients were managed for ICP. Left side dominance was found in patients managed for unilateral clefts either as CL alone (45; 54.22%) or as CLP (21; 46.67%).

Result from this study also showed that cleft lip and palate presentation with respect to gender in table 1 shows increased incidence in males than females. The most common occurrences are complete cleft of soft palate (30.51%) and incomplete cleft lip (30.51%). The least occurrence was complete cleft lip[11]. The method of the presentation of cleft lip and cleft palate of patients in Port Harcourt differ slightly to those reported by Oluwasanmi in 1970[6] (CL = 58.4%, CP = 10.6%) and Iregbulem in 19826 (CL = 49%, CP = 19%). Other Nigerian authors[13,14,15] have reported similar findings with (CL = 40-60%, CP = 10-20%). The reason for this difference may be related to the selection criteria utilized in this study. This finding has been attributed to the delayed development of the facial artery on the male when compared with the female in the human foetus.[16,17]

From Table 1 the percentage distribution of patient with complete cleft of hard palate were 14(23.00) and 9(21.95), complete cleft of soft palate was 18(30.51) and 12(29.27), complete cleft lip was 9(15.25) and 7(17.07), incomplete cleft lip 18(30.51) and 13(31.71) for both males and females respectively.

Conclusion:

The inclusion of various specialties in the cleft team is highly desirable. Experience suggests that cleft patients are more interested in surgical repair. The poverty level of the majority of the population makes the provision of nonsurgical cleft management difficult. Continuous patient education and funding for nonsurgical treatment may address these issues. Enlightenment campaign in rural communities and encouraging patients with cleft lip and palate to join the cleft club will make them identify more with the Smile Train programme and this will improve the under reporting and under documentation of clefts of the lip and palate, putting a smile on these patients who are innocent of the etiology of this condition.

References:

1. Rullo, R, Festa, VM, Rullo, R., Addabbo, F, Chiodini, P, Vitale, M, & Perillo, L. Prevalence of dental anomalies in children with cleft lip and unilateral and bilateral cleft lip and palate. Eur J Paediatr Dent, 2014, 16(3), 229-232.
2. Kohli, S, Kohli VA, comprehensive review of genetic basis of cleft lip and palate. J Oral Maxillofac Pathol. 2014, 16:64–72.
3. Lakhanpal M, Gupta N, Rao N, Vashishth S, Genetics of cleft lip and palate- is it still patchy. JSM Dent.; 2014, 2:1–4
4. Arosarena, OA, Cleft lip and palate. Otolaryngologic Clinics of North America, 2007, 40(1), 27-60.
5. Akinwale, AE, Kelvin UO, Ibiyinka, OA, Otasowie, DO, and Izegboya, A. A review of cleft lip and palate management: Experience of a Nigerian Teaching Hospital, Afr J Paediatr Surg. 2015 Oct-Dec; 12(4): 257–260.
6. Oluwasanmi JO, Adekunle OO. Congenital clefts of the face in Nigeria. Plast Reconstr Surg. 1970; 46:245–51.
7. Russell, E, Ettinger and Steven R. Buchman in Grabb and Smith's Plastic Surgery 8th Edition Cleft Lip and Palate: Embryology, Principles, and Treatment. 2020, 835
8. Robin NH, Baty H, Franklin J, Guyton FC, Mann J, Woolley AL, et al. The multidisciplinary evaluation and management of cleft lip and palate. South Med J. 2006; 99:1111–20.

9. Nahai FR, Williams JK, Burstein FD, Martin J, Thomas J. The management of cleft lip and palate: Pathways for treatment and longitudinal assessment. Semin Plast Surg. 2005;19:275–85.
10. Iregbulem LM. The incidence of cleft lip and palate in Nigeria. Cleft Palate J. 1982;19:201–5.
11. Olasoji O, Arotiba T, Dogo D. Experience with unoperated cleft lip and palate patients in a Nigerian teaching hospital. Trop Doct. 2002;32:33–6.
12. Onah II, Opara KO, Olaitan PB, Ogbonnaya IS. Cleft lip and palate repair: The experience from two West African sub-regional centres. J Plast Reconstr Aesthet Surg. 2008;61:879–82.
13. Orkar KS, Ugwu BT, Momoh JT. Cleft lip and palate: The Jos experience. East Afr Med J. 2002;79:510–3.
14. Eigbobo JO, Akadiri OA. Pattern of cleft lip and palate deformities and associated anomalies in a selected Nigerian population. Niger J Plast Surg. 2011;7:59–64.
15. Cleft lip and palate in northern Nigerian children. Ann Afr Med. 2003;2:6–8.
16. Fadeyibi IO, Adeniyi AA, Jewo PI, Saalu LC, Fasawe AA, Ademiluyi SA. Current pattern of cleft lip and palate deformities in Lagos, Nigeria. Cleft Palate Craniofac J. 2012;49:730–5.
17. Hirayama K. Anatomical studies on the development of the facial artery and its distribution in the cleft lip of the human fetus. Part 1 development of the facial artery in the human fetus on the latter stage of pregnancy. Med J Kagoshima Univ. 1971;1:295–316.