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Article

THE DOCUMENTATION OF CLEFT LIP AND PALATE PATIENTS AT THE DEWI SARTIKA HOSPITAL IN KENDARI

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ABSTRACT

Introduction : Cleft in the lips and palate is a congenital abnormality in the lip and palate. The incidence of oral cleft in the United States is estimated to be 1 in 700 births. Meanwhile, for Indonesia, especially the Southeast Sulawesi region, it has not been well documented.
Method : This is a retrospective study to determine the prevalence of cleft lip and cleft palate or labiopalatosc at Dewi Sartika Hospital in Kendari, Southeast Sulawesi between January and December 2018.
Result : Prevalence of Labioschisis, Palatoschisis and Labiopalatochisis on January-December 2018 is 23 patients (33%), 13 patients (19%) and 34 patients (49%). Presentation for each of kind unilateral are : unilateral labioschisis is 38 patients (66,7%) and bilateral labioschisis is 19 patients (33,3%). Presentation according to the place of defect labioschisis : right is 10 patients (17,6%), left 28 patients (49,1%), bilateral 19 patients (33,3%). Distribution kind of palatoschizis : complete palatoschizis is 49 patients (89%) and Incomplete palatoschizis is 6 patients (11%). Presentation labioschizis according to sex : Male 40 patients (57%), and female is 30 patients (43%).
Conclusion: The prevalence of cleft lip and palate has many forms, kind of labioschisis that large is unilateral labioschisis and localization defect is often on left edge. Complete labioschizis is large than incomplete palatoschizis. Labioschisis is happen more to male.
***Keywords**: Cleft lip and palate; Demographics; Southeast Sulawesi; Indonesia*

Latar Belakang: Celah pada bibir dan langit-langit merupakan kelainan bawaan pada bibir dan langit-langit. Insiden celah mulut di Amerika Serikat diperkirakan 1 dari 700 kelahiran. Sedangkan untuk Indonesia khususnya wilayah Sulawesi Tenggara belum terdokumentasi dengan baik.
Metode: Penelitian ini merupakan studi retrospektif untuk mengetahui prevalensi celah bibir dan celah langit-langit atau labiopalatosc di Rumah Sakit Dewi Sartika Kendari, Sulawesi Tenggara antara Januari dan Desember 2018.
Hasil: Prevalensi Labioschisis, Palatoschisis dan Labiopalatochisis pada Januari-Desember 2018 sebanyak 23 pasien (33%), 13 pasien (19%) dan 34 pasien (49%). Presentasi untuk masing-masing jenis unilateral adalah : labioschisis unilateral sebanyak 38 pasien (66,7%) dan labioschisis bilateral sebanyak 19 pasien (33,3%). Presentasi menurut letak defek labioschisis : kanan 10 pasien (17,6%), kiri 28 pasien (49,1%), bilateral 19 pasien (33,3%). Jenis distribusi palatoschizis : palatoschizis komplit sebanyak 49 pasien (89%) dan palatoschizis inkomplet sebanyak 6 pasien (11%). Presentasi labioschizis menurut jenis kelamin : Laki-laki 40 pasien (57%), dan perempuan 30 pasien (43%).
Kesimpulan: Prevalensi celah bibir dan langit-langit memiliki banyak bentuk, jenis labioschisis yang besar adalah labioschisis unilateral dan defek lokalisasi sering pada tepi kiri. Labioschizis lengkap lebih besar dari palatoschizis tidak lengkap. Labioschisis lebih banyak terjadi pada laki-laki.
***Kata Kunci:** Bibir dan langit-langit sumbing; Demografi; Sulawesi Tenggara; Indonesia*

Conflicts of Interest Statement:
The author(s) listed in this manuscript declare the absence of any conflict of interest on the subject matter or materials discussed.

INTRODUCTION

Cleft lip and palate are the most frequent craniofacial anomalies of the human species. It is estimated that cleft lip and palate affects 1 in 700 live births.[1] It has been reported every year that more than four million children are born with birth defects worldwide. Craniofacial anomalies comprise a large fraction of all human birth defects, less frequent only than congenital heart disorders and clubfoot. Cleft lip and cleft palate are the most common craniofacial birth defect

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with an estimated quarter of a million affected babies born each year in the world. This malformation shows considerable variation across geographic regions and ethnic groups and has significant medical, psychological, social, and economic ramifications.[2]

The classification system is in the form of documentation and communicates effectively, then it has been classified in various types. The early Veau classification included groups 1–4 with increasing severity of clefting: group 1 – cleft of the soft palate, group 2 – cleft of the hard and soft palate up to incisive foramen, group 3 – complete unilateral cleft lip and palate, group 4 – complete bilateral cleft lip and palate. However, this classification is not always adequate to document the variations. The more sophisticated schematic diagrams, such as the one described by Kernahan and Stark have been used recently Berkowitz used a simple classification for labio-palatine clefts: clefts of lip and alveolus, clefts of primary (including lip) and secondary palate, clefts of secondary palate only and submucous cleft.[3]

Cleft and lip palate occurs in a variety of genetic and environmental events. There are more than 400 genes associated with the formation of cleft lip and palate. 30% of these cases are associated with one of the 400 syndromes and other physical disorders, while the remaining 70% of cases of cleft lip and palate are not associated with other syndromes. Two-thirds of all cleft include the cleft lip, with or without a cleft palate, and the remaining third is an isolated cleft palate.[4,5]

The cause of cleft lip and palate is largely unknown. the majority of the cleft lip and palate are believed to have multifactorial causes with a number of genetic and environmental factors interacting to shift the complex process of primary and secondary palate morphogenesis towards the threshold of abnormalities where the gap can occur.[6]

The therapeutic treatment of children with cleft lip and palate poses different challenges but also many rewards. The involvement of all parties with these children and their families often begins before birth and can extend to advanced adulthood. Affected individuals present a variety of problems and effective management involves a variety of specialist problems.[7]

The management of cleft lip and palate presented is not accepted as a whole by all cleft service centers, and there is diversity in clinical practice in each region.[8] Evidence-based medicine must be the answer to the uncertainty in the therapeutic process, but there is still a lack of high-level evidence on the cleft lip and palate.[9,10] Therefore, many clinical decisions are based on appropriate evidence, such as decisions on when to have secondary bone grafts, which are answered by many surgeons with information from retrospective studies.[11]

METHOD

This is retrospective-descriptive study. The subjects of the study were all patients with Labioschisis who were treated at Dewi Sartika Hospital. The place of research is conducted in the Medical Record Section. The study was conducted in January - December 2018. Data in the form of medical records.

RESULTS

From 70 data from Labioschisis and Labiopalatoschizis patients at Dewi Sartika Hospital in January - December 2018, it was found found 33% included cleft lip without palate of 23 patients, cleft palate that is 13 patients or 19%. cleft lip and palate that is 34 patients or 48%.

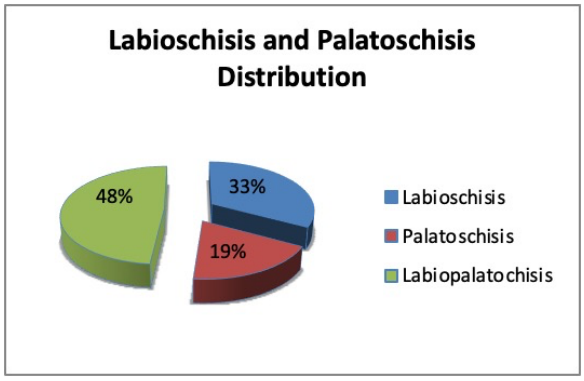

Figure 1. Labioschisis and Palatoschisis distribution

Presentation for each of kind labioschisis are: unilateral labioschisis is 38 patients or 66,7% and bilateral labioschisis is 19 patient or 33,3 with total 57 for patient with cleft lip. Labioschisis defect distribution

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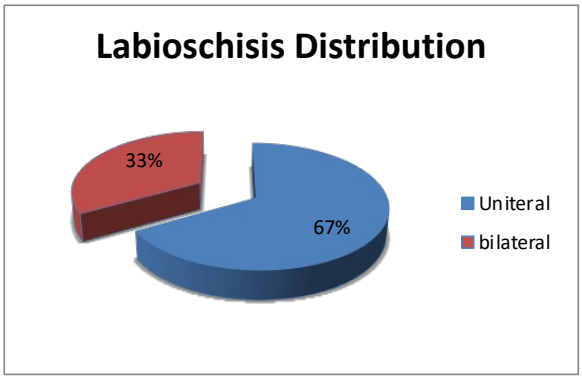

Figure 2. Labioschisis distribution

Presentation according to the place of defect labioschisis: right defect is 10 patients or 17,6%, left defect is 28 patients or 49,1%, and bilateral defect is 19 patient or 33,3%.

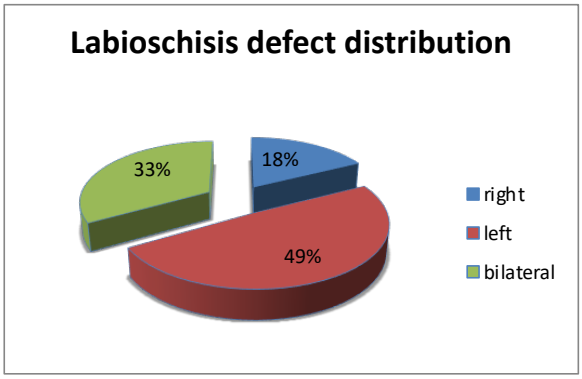

Figure 3. Labioschisis defect distribution

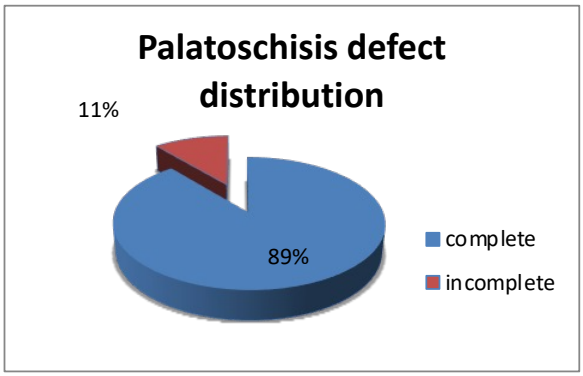

Figure 4. Palatoschisis defect distribution

Distribution kind of palatoschizis : complete palatoschizis is 49 patients or 89% and Incomplete palatoschizis is 6 patients or 11%.

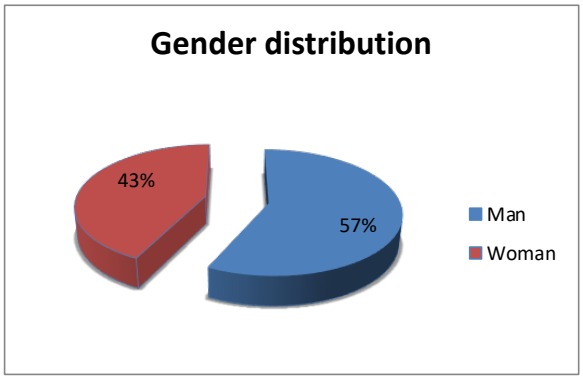

Figure 5. Gender distribution

Presentation labioschizis according to gender: Male is 40 patients or 57%, and female is 30 patients or 43%.

DISCUSSION

A kind of craniofacial birth abnormality identified as cleft lip and palate affects about 7,000 newborns in the United States every year. According to the CDC, 4,440 babies are born in the United States each year with cleft lips, and 650 newborns are born with cleft palate only (CPO). Every year, 1 in 700 infants around the world are born with a cleft lip, cleft palate, or both. Researchers discovered that bilateral cleft lip (2:1 male-to-female ratio) and CPO were more prevalent in females. According to reports, the left side (ratio 2:1) was more predominately affected by unilateral cleft lip. The World Health Organization (WHO) reports that ethnic groups and geographical regions have different rates of cleft lip and palate diagnosis.[11]

Children who have cleft lip or palate need long-term, intricate, and well-resourced care. A report on physicians' management of patients with cleft lip and palate was released by the American Academy of Pediatrics (AAP) in 2017. Look for a transparent appearance, an elevation of the palate during phonation, and perhaps a bifid uvula while inspecting the oral palate. Additionally, the articulation and phonology of the child's speech should be evaluated, particularly for hypernasality. According to the CDC, 30% of kids with cleft lip or cleft lip and palate and 50% of kids with CPO have a syndrome.[12]

Location, level of lip involvement, and the existence or absence of a cleft palate are used to classify orofacial clefts. Depending on how much the nose is affected, cleft lips can be unilateral,

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bilateral, midline, complete, or incomplete. The most typical type of cleft is a unilateral cleft, which might have a cleft palate or defect one side of the lip. A misalignment of the levator muscles results in submucous cleft palate, a less severe case of the condition. A child may not be diagnosed with submucous cleft palate until they are old enough to speak because it is more difficult to make that diagnosis during an examination. Clefts can be divided into two categories: syndromic and nonsyndromic. Unlike cleft lip or cleft lip and palate, CPO is more likely to be associated with a syndrome or genetic defect. The majority of cleft lip and palate instances, however, do not also involve other congenital abnormalities. Van der Woude syndrome, Stickler syndrome, and velocardiofacial syndrome are a few common disorders connected to cleft palate.[13]

According to epidemiological evidence, environmental risk factors for CLP include maternal alcohol and tobacco use, poor nutrition, and viral infections.

It has been regularly shown that maternal smoking during pregnancy increases the likelihood of developing CL with or without CP as well as isolated CP. The influence of alcohol on isolated orofacial clefts is less clear, with some research reporting beneficial connections while others did not.[15,16]

The cleft lip and palate were categorized by several writers. [4] The clefts were divided into four major groups by Veau:[14]

- Clefts of soft palate.
- Clefts of hard palate.
- Unilateral clefts of the lip, alveolus and palate.
- Bilateral clefts of the lip, alveolus and palate.

There has been a general movement in the UK to adopt a straightforward approach for categorizing clefts. It is based on Otto Kreins' LAHSHAL method, which the Royal College of Surgeons changed by leaving out one "H."[17,18]

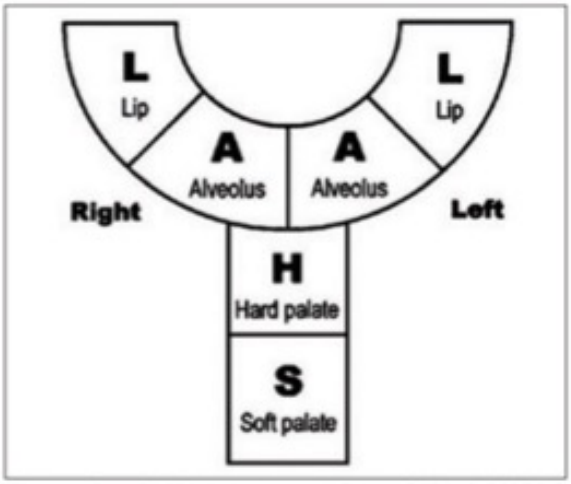

Figure 6. LAHSAL categorization system represented symbolically.

The LAHSAL code splits the relevant parts of the mouth into six parts (Fig. 1): [17,18]

- Right lip
- Right alveolus
- Hard palate
- Soft palate
- Left alveolus
- Left lip

The LAHSAL code indicates for each part whether there is a complete cleft (upper case letter, for example, H), an incomplete cleft (lower case letter, for example, h) or no cleft.

CONCLUSION

Based on research during the January-December 2018 period, at the Dewi Sartika Hospital in Kendari it was found that:

1. reported data that 33% of cleft lip without palate or 23 patients, cleft palate that is 13 patients or 19%. cleft lip and palate are 34 patients or 48% with a total of 70 patients.
2. The presentations for each type of labioschisis were: unilateral labioschisis was 38 patients or 66.7% and bilateral labioschisis was 19 patients or 33.3 with a total of 57 for patients with cleft lip
3. Presentation according to labioschisis defect site: right defect was 10 patients or 17.6%, left defect was 28 patients or 49.1%, and bilateral defects were 19 patients or 33.3% with a total of 57 patients.
4. percentage of palatoschizis distribution: complete palatoschizis was 49 patients or 89%

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and incomplete palatoschizis were 6 patients or 11% with a total of 55 patients.

5. labioschizis presentation by sex: Men are 40 patients or 57%, and women are 30 patients or 43% for a total of 70 patients

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