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Nonsyndromic Presentation of Bilateral Congenital Lower Lip Pits in a Saudi Child

M Zakirulla[1]*, Hanin Mathkar Ali Al-Qahtani[2], Faris Ali S Al-Qahtani[3], Yara M. Qassim[2], Mohammed Ibrahim[4], Imran Khalid[4], Abeer A. Alghothimy[5], Safar Mohammed Abdullah[6], Abdulhadi M. Alqahtani[5]

[1]Assistant Professor, Department of Pediatric Dentistry & Orthodontic Sciences, College of Dentistry, King Khalid University, Abha, Kingdom of Saudi Arabia

[2]Intern, College of Dentistry, King Khalid University, Abha, Kingdom of Saudi Arabia

[3]Dental student, College of Dentistry, King Khalid University, Abha, Kingdom of Saudi Arabia

[4]Assistant Professor, Department of Oral and Maxillofacial Surgery, College of Dentistry, King Khalid University, Abha, Kingdom of Saudi Arabia

[5]General Dentist, Abha Maternity Children Hospital, Abha, Saudi Arabia

[6]General Dentist in Medical Services-Ministry of Interior, Baha, Kingdom of Saudi Arabia

ABSTRACT

Lip pits are on the list of rarest congenital anomalies documented. Lip pits may appear in the upper lip, lower lip or oral commissure. Although lip pits could be seen close to the oral commissure or midline of upper lip, most instances occur on the low lip. 70% of the lip pits relate to cleft lip or palate. Another 30% have minimal results, such as example hypodontia, or separated lower lip pits. The occurrence of lip pits can be an autosomal dominant trait connected with developmental defects relating to the paramedian parts of the vermilion of the lip. Lip pits are also associated with a selection of other congenital problems along with other malformations. Females tend to be more affected than men. The recognition of lip pits with additional related anomalies is vital for genetic counseling; we review a case of a 7-year-old female child with nonsyndromic congenital lower lip pits, where 2 of her other family members were also affected.

Key words: Congenital, Familial, Lip pits, Nonsyndromic, Bilateral

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Corresponding author: M Zakirulla

e-mail✉: drzak786@gmail.com

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INTRODUCTION

Congenital lower pits certainly are an uncommon developmental malformation. They generally manifest on the lower lips. The etiology of lip pits in either sporadic or syndrome-related presentations isn't obviously known; nevertheless, it is usually believed that lip pits can result because of notching of the lip with fixation of tissues at the bottom of the notch or because of failure of complete union of embryonic lateral sulci of the lip [1]. Lip pits are uncommon congenital anomalies affecting the lips. It had been first reported and explained by DeMurquay in 1845 [2]. The occurrence of lip pits can be an autosomal dominant trait connected with developmental defects relating to the paramedian parts of the vermilion of the lip. It really is one of the most regularly happening congenital malformations of the low lip. Congenital lower lip pits are frequently inherited, being an autosomal dominant trait with adjustable penetrance, and will be more common in women [2]. Congenital lower lip pits are often bilateral and symmetrical midline depressions that create on the vermilion border of the low lip. These depressions represent fistulae lined by stratified squamous epithelium that traverse the underlying muscle tissue for 5-25 mm and talk to the minimal salivary glands through their excretory ducts [3]. Herewith we

survey a rare situation of congenital lip pits.

CASE REPORT

A 7-year-old Saudi girl presented to outpatient dental clinics of KKUCOD complaining of delayed eruption of her permanent upper left central incisor. Her medical history was uneventful except for some eye redness influenced by dust. Intraoral examination showed a constricted maxilla with a high arch palate. Class 1 type of occlusion with severe crowding has been observed. Oral examination revealed no cleft lip or palate or any dental anomalies except some dental caries, pulp inflammation in hard tissue, and generalized plaque-induced gingival inflammation in soft tissue.

On extraoral examination, bilateral lip pit deformities were observed in her lower lips. The pits were bilateral paramedian, V-shaped, and invaginated lesions. These depressions were asymptomatic. There was no evidence of cleft lip and cleft palate. The lesions were of normal color and texture as compared to the non-affected upper lip. On palpation, the lesions were soft and painless, and the pits excrete saliva when stimulated. On extraoral examination, the patient had a straight facial profile and dolichocephalic face. On history, the patient's mother informed that the deformity has not changed in size or shape throughout her life, and it was present since her birth. Family history revealed that the presence of identical defects in the father and her sister was reported by the patient's mother and confirmed by close examination of family photos. They all share the same size, shape, and distribution of lesions. Based on the medical history and clinical examination, the diagnosis of nonsyndromic congenital lower lips was made. Lip pits were left untreated as the girl was asymptomatic, and her parents were not interested in its treatment. Her carious teeth were treated, and she was scheduled for orthodontic treatment (Figures 1-4).

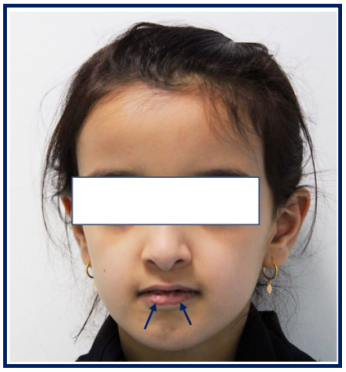

Figure 1: Extra oral view.

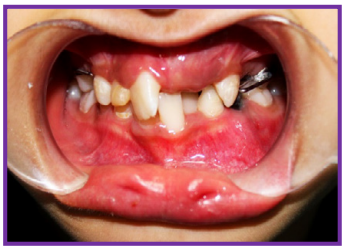

Figure 2: Bilateral lower lip pits of a female child.

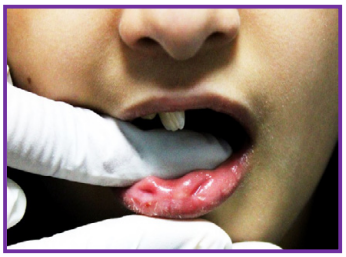

Figure 3: Local examination of the lip pit.

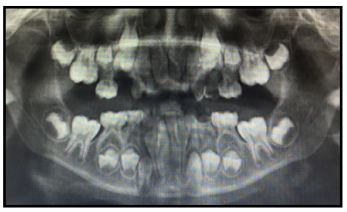

Figure 4: Orthopantomography (OPG).

DISCUSSION

In the intrauterine developmental phase of the top and neck, the fusion of mandibular arch and sulcus lateralis occurs at 5.5 weeks, whereas the fusion of the maxillary and frontonasal functions occurs through the 6th week. A typical event may, at the same time, affect fusion in both places. This results in a strong association between your lip pits and cleft lip or palate in 21% of patients [4]. Mostly lip pits occur because of microdeletion on chromosome bands 1q 32 q41.10 [5]. The lip pit is really a congenital anomaly, generally bilateral, often symmetrical, on the vermilion portion or in the mucocutaneous type of the lip [6]. Congenital lip pits could be classified in accordance with their place as Commissural, midline upper lip, and lower lip. Lower lip pits may also be known as fistula labii inferioris, labial humps, labial cysts, labial fistulae, and paramedian sinuses of the lower lip [2]. It could occur being an isolated defect or in collaboration with a syndromic condition.

Depending on the amount of expression of the gene, the scientific manifestation of lower lip pits may differ. It could extend from small depressions on the vermilion border of the lip and fistulas that penetrate subjacent minimal or main salivary glands and drain smaller amounts of saliva [7]. Dome designed elevations and/or openings without depth presumably represent microforms of lower lip pits. The lip elevations may from a time-to-time fuse in the midline, creating a snout like construction [8]. They might be shallow or deep, varying from asymptomatic slight depression symptoms on the vermilion border of the lower lip to deep fistulas that penetrate the accessory salivary glands. These may drain smaller amounts of saliva, either noticeable or expressible, in the lip pits [9].

Various theories have already been suggested to describe the etiology of lip pits. Several proposed theories are usually an intrauterine condition of the labial glands, an effort by the lower lip to near a cleft of the upper lip, amniotic adhesions, unusual invagination of the lip mucosa, the faulty union of the mandibular procedures, and the existence of epithelial pearls. None of these clarifies the anomaly adequately [10]. This event results in the most connected features seen with lip pits, cleft lip, or palate occurs inside 21% of the individuals; hypodontia is rarely noticed [11]. But hypodontia is situated in 10-81% of the sufferers with Van der Woude syndrome. Other associated anomalies observed in patients with lip pits consist of syndactyly of the fingers, clubfoot, genitourinary abnormalities, and cardiovascular anomalies. Patients often error these types of pits as depressions due to the main maxillary incisors, despite the fact that the pits can be found from births, weeks prior to maxillary incisors erupt. Thus, it is very important to have individuals evaluated for other anomalies linked to the lip pits as the pits tend to be not acknowledged by the patient's primary treatment physician [3].

The treating the pits is surgical excision, to ease irritation or for cosmetic factors [11]. During excision of the pits, it is especially important to ensure proper elimination of the complete tract because the existence of salivary cells in virtually any residual tract will result in cyst formation. The size of the tracts may differ between an extraordinarily little orifice or end up being as broad as 6 mm. Because the tracts can bifurcate, utilizing a lacrimal probe to trace the tract can lead to causing tract branches behind. Bacitracin ointment blended with methylene glowing blue dye has already been routinely used to monitor preauricular pits, sinuses, and cysts during excision and will be used in the event of lip pits as well. However, the primary drawback of this procedure can be the looseness of lip muscle tissue. Secondary infections, but not frequently reported, should be avoided, and sufferers who usually do not undergo medical modification are usually instructed for approximately meticulous hygiene care [12]. The identification of familial lip pits is crucial for genetic counseling. Bodily study of relatives, close study of family pictures, or interviews of old family members may be essential to recognize minimally impacted family members. However, due to the adjustable expressivity of the phenotype, the potential results on unborn kids are hard to anticipate, and high-resolution ultrasound and fetal echocardiography could be of some use in characterizing the severe nature of the phenotype [8].

CONCLUSION

This case report presents a case of isolated congenital deep lip pits in a 7-year-old female Saudi child with positive genealogy. Physical examination of relatives, close study of family pictures, or interviews of old family members may be essential to identify the minimally impacted family. Lip pits are rare congenital anomalies and so are usually associated with some other comorbidities. Congenital lower lip pits could be unesthetic and trigger cosmetic complications for the individual. Hence, it is essential that the clinicians must have a complete understanding of the problem and perform a vital role in combating the emotional trauma of the individuals.

DECLARATION OF PATIENT CONSENT

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published, and due efforts will

be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

CONFLICTS OF INTEREST

There are no conflicts of interest.

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