PEDIATRIC SOFT TISSUE ORAL LESIONS: A REVIEW

Abstract:
The oral cavity represents the mirror of an individual's health status at all ages. Several oral mucosal lesions can be seen in children, therefore, classification was made depending on the lesion's size, color and location. Dental surgeons deal with the oral cavity related lesions, so, classification enhanced their work quality and made the management of the patients easier. Clinical presentation of the oral mucosal lesions in children varies significantly and most of the occasions the cause and the effect can be established with a complete history and clinical examination. Most of the previous reports described the lesions of oral mucosa in the adult's population and there is a lack of the studies that present these lesions in children, therefore, this study focused on the oral mucosal benign lesions and conditions that affect children and provides an overview of the classification and description of such lesions to perform correct diagnosis and management.

Key Words: Children, Oral Mucosal lesions, Ulcers, Neoplastic

Introduction:
A child's oral mucosa should be pink, smooth, moist, and shiny in its appearance. The dorsum of the tongue should have a velvety surface texture, and the lingual frenulum should be of adequate length to allow normal tongue movements. Oral mucosal lesions in children may appear as changes in color, size, or structure of the normal oral anatomy [1]. Changes in a child's mouth, besides causing parents' concern, can lead to pain and discomfort; however, they can also be completely asymptomatic [2]. Typical anatomical structures such as linea alba or leukoedema may also be a cause of panic for parents at the time they first see them in their child's mouth if they know nothing about their benign and asymptomatic character. This is where the knowledge and skills of the doctor of dental medicine become extremely important since they should be the ones to calm parents and explain the nature of these anatomical structures [1,3]. Congenital anomalies, such as ankyloglossia, may present a heavy challenge for the parents depending on its level since it can impede normal feeding from an early age or later on when it poses a great difficulty for the child due to the restrictions in normal speech [1,4]. Developmental anomalies should be detected as early as possible since, although asymptomatic, they may predispose the child to develop different complications such as infections or indicate the presence of certain syndromes such as Down syndrome, which is often coupled with a fissurated tongue [2,5]. Many hereditary diseases show first symptoms in the oral cavity. Recognition of these oral symptoms can lead to an early diagnosis and therapy before the disease spreads to other organ systems [1,6]. Benign tumors occur relatively often in the oral cavities of newborns and children. The most common is fibroma, a benign tumor of the connective tissue, followed by hemangioma and lymphangioma [1,2]. Traumatic lesions such as mucocele and ranula can be the underlying cause of swelling which will require surgical intervention [2,7]. Traumatic lesions can be classified according to the type of injury as thermal, mechanical, or chemical. Their treatment should be focused on enhancing the healing process in order to avoid complications such as infections, which would further aggravate the condition [1,8]. Recurrent aphthous lesions, which appear quite frequently in children, may impede the normal feeding process, swallowing, and speech [9]. The purpose of this review is to describe common soft tissue lesions of the oral cavity in children in order to help timely diagnosis and treatment; furthermore, we will also address some less frequent changes which may indicate the presence of systemic disorders which require a multidisciplinary approach. A study was performed in Italy included 10,128 children at 0-12 years old age, 28.9% of these children were detected with oral mucosal lesions, oral candidiasis was the most common lesions that comprised (28.4%), followed by the traumatic lesions that represented (17.8%) of the cases, while the erythema multiforme comprised (0.9%) of the cases and represented the least common type, the oral mucosal lesions were more frequent in children with systemic diseases in comparison to healthy children[10].

Pediatric soft tissue oral lesions :
Pediatric oral mucosal lesions can occur as sores or ulcers, change in color or size and distortion of the normal anatomy of the oral cavity[11]. This study focused on oral mucosal lesions and conditions that affect children.

1.Physiological Structures:
Physiological structures are very common, benign and asymptomatic lesions of oral mucosa and do not require treatment but should not be mistakenly diagnosed as pathological lesions [12].

1.1 Linea Alba: This benign condition is typically localized on the buccal mucosa and stretches from the labial commissure towards the molar region [12]. It is clinically easily recognized as a white line of different intensity and

thickness located at the level of occlusal surfaces [1,3,12]. It can be found either unilaterally or bilaterally [3]. Occasionally it may appear on the lateral borders of the tongue. It does not require treatment [1,12].

1.2 Leukoedema: Leukoedema is a common, benign, and asymptomatic lesion of the oral mucosa, which is considered a variation of the normal mucosal anatomy [3,10,13]. It appears as a whitish lesion located bilaterally or unilaterally on the buccal or labial mucosa [1,13]. It is of unknown etiology and is more frequently found in African Americans and among males [1,3,12]. Clinical presentation is of diffuse white creases or patches which disappear once the mucosa is stretched [12]. Since this lesion is benign and asymptomatic, it does not require treatment [1,12].

2.Congenital Anomalies:

Congenital anomalies are usually benign anomalies which can affect a child's function or aesthetics. They should be monitored because of their impact on the quality of a child's life and properly diagnosed because of the possible malignant potential of nevi [1,2].

2.1 Ankyloglossia: Ankyloglossia is a congenital anomaly characterized by an abnormally short lingual frenulum which significantly limits tongue mobility [1,4,12,14–16]. A heart-shaped invagination at the tongue tip forms when tongue elevation is attempted [15,17]. In newborns, a short frenulum can follow the child's growth and cease to represent a functional difficulty when the child reaches a certain age [2]. Variability in the position and insertion level of the lingual frenulum has been observed; therefore, in order to reach the correct diagnosis, the determination of the functional disorder is of prime importance rather than anatomical variability [4,18]. If the child can lick his/her lower lip, it is considered that there are no functional disturbances and treatment is not indicated [2,14,18]. More severe types of ankyloglossia result in breastfeeding problems and impaired speech development later on [4,12,16–18]. In those cases, surgical therapy, frenectomy, is indicated, whereas, in cases of impaired phonatory function, treatment must also include the help of a logopedist [2,12,15,16].

2.2 Congenital Epulis: Congenital epulis is also known as the granular cell tumor [19–21]. It is a rare and benign lesion found in newborns and may often be found even before birth [19,20,22,23]. It is more common in girls [20,23], with typical localization on the alveolar ridge of the upper jaw, although it can also be found in the mandible [19,22]. Clinically it presents as a pedunculated nodule of the same color as the surrounding mucosa, elastic and smooth surfaced [21,23.] It usually measures approximately 10 mm in diameter, and it has been demonstrated that it does not follow the child's growth, but rather it remains of the same size; therefore, at follow-up, it appears smaller [23]. The treatment of choice is usually surgical, and diagnosis is confirmed through pathohistological analysis [20], which shows the proliferation of large eosinophilic polygonal cells with eccentric nuclei and granular cytoplasm [19,22,23].

2.3 Melanocytic Nevus: Melanocytic nevus is a pigmented mucosal lesion which is caused by the accumulation of pigment-producing cells called melanocytes [4,17,24]. It can be congenital or develop at any time during life [4,17,24,25]. Histological classification of nevi is crucial since it determines their prognosis (Table 1) [1]:

1. Junctional nevus: the proliferation of melanocytes in proximity to the network of blood vessels and nerves located superficially. It is usually limited to the epithelium [1,26].
2. Compound nevus: the proliferation of melanocytes in both epithelium and the underlying connective tissue [26].
3. Intradermal/intramucosal: melanin-producing cells that are located in lamina propria and are not in contact with the basal membrane. The lesions are typically domeshaped, light brown, and located on the gums, lips, or buccal mucosa [1,26].
4. Blue nevus: the proliferation of elongated melanocytes deep within the lamina propria, far from the epithelium. This lesion is typically found on the hard palate [1,26,27]. They can be further classified into atypical blue nevus, locally aggressive blue nevus and congenital giant melanocytic nevus with nodular growth [1,27].
5. Other melanocytic nevi include combined nevus and Spitz nevus, with palate or tongue localization [1,28].
6. Congenital melanotic nevus: can be junctional, compound, intradermal, or intramucosal. They have their onset at birth, and they differ from common acquired nevi by their size and depth of involvement by nevus cells and adnexal and vascular involvement [1, 29.]

Table 1. Prognosis and treatment according to histological type of nevi.

Type of Nevi	Prognosis and Treatment
1. Junctional nevus	Good prognosis. No treatment needed. May be surgical, cryotherapy, or laser therapy. [30]
2. Compound nevus	Good prognosis. Surgical excision is treatment. [31]
3. Intramucosal nevus	Good prognosis. Surgical excision is treatment. [32]
4. Blue nevus	Possible malignancy. Pathohistological diagnosis is necessary. [33]

5. Spitz nevus Good prognosis in children.The diagnosis of a Spitz nevus must be carefully distinguished from melanoma. Surgical excision is treatment [34].

The prevalence of oral nevi in children is unknown; however, solitary nevi are considered a relatively rare occurrence [1]. The most frequently observed nevi in the oral cavity are intramucosal and blue nevus, while compound nevus is the least common [35]. Melanocytic nevi present as localized brown, blue, grey, or black macules or papules of 0.1 to 3.0 cm in diameter [1,36]. They are asymptomatic and are usually found by accident upon clinical examination [35]. Nevi are commonly localized on the hard palate, buccal mucosa, and gums [1,36]. They are extremely rare in the retromolar area [35]. Diagnostic procedures include excisional biopsy with the exception of mucosal melanoma, especially if the lesion is localized on the palate [1,35,36]. At the same time, excisional biopsy also poses as the treatment [1,35].

3. Developmental Anomalies

Developmental anomalies are relatively common in children [1,13]. Although their cause is unknown, they can be caused by hereditary factors or occur as a symptom in various syndromes [2,5,12].

3.1 Geographic Tongue: Benign migratory glossitis, often called geographic tongue , appears in 1–3% of the population and is not uncommon in children [12,37,38]. The cause is unknown; however, it is assumed that a significant role is played by hereditary factors [1,12,38,39]. The disorder is also often related to various systemic and psychological conditions [38,40]. Geographic tongue is marked by erythematose, round or irregularly shaped patches on the dorsal and lateral portions of the tongue [2,13,38,40]. The sides of the tongue are slightly elevated, hyperkeratotic, and yellowish [2,12,38,39]. Lesions change their position on the tongue surface over time; therefore, they have been termed "migratory" [2,37,38]. Areas of desquamation are prone to secondary infections, so the inflamed areas may become quite painful, although this is rarely the case; typically, this condition is asymptomatic and resolves spontaneously [2,12,37]. In cases of pain or discomfort, the application of antiseptics, topical anesthetics, and/or corticosteroids can be indicated [12,37].

3.2 Fissured Tongue: Fissured tongue is a developmental anomaly which is typically presented as a solitary anteroposterior fissure (groove) right in the middle of the dorsal surface of the tongue [13]. It is not uncommon to find smaller and shallower furrows originating from the main fissure and spreading radially [2,12,13,37]. Although it represents a more frequent finding in adults, fissured tongue may appear in children in the form of an isolated developmental anomaly or coupled with other disorders such as Down syndrome and Melkersson– Rosenthal syndrome [2,5,12,13,37]. Melkersson–Rosenthal syndrome, although extremely rare in everyday clinical settings, is characterized by a triad of symptoms-orofacial edema,hemifacial paralysis and fissured tongue [5,40]. Fissured tongue is often related to complication in the form of inflammation and secondary fungal infections as a consequence of food debris retention in deeper grooves [2,12,13,37, 41].

3.3 Retrocuspid Papilla: Retrocuspid papilla is one of the developmental anomalies that may be found in many children [13]. It is located on the attached gingiva on the lingual aspect of lower canines and typically occurs bilaterally [2,13]. This solid, fibro-epithelial pink to red papula [42], measuring 2 to 3 mm in diameter, is usually asymptomatic and has a tendency to decrease over time; therefore, it does not require treatment [2,42].

4. Hereditary Diseases:

Hereditary diseases such as white sponge nevus, Peutz–Jeghers syndrome, or neurofibromatosis type 1 may present with oral symptoms that are important for establishing a final diagnosis and, accordingly, appropriate treatment [1,13,43–45].

4.1 White Sponge Nevus: White sponge nevus is a benign asymptomatic lesion which is inherited as an autosomal dominant disorder [1,13,43,46–51]. Lesions are clinically presented as uni- or bilateral white patches of thick, sponge-like, or velvety tissue which are non-scrapable [1,13,46,48]. They are most commonly found on the buccal mucosa but may also be located on the tongue surface, labial mucosa, mouth floor, and gingiva [1,48,51,52]. Usually, they are already present at birth or in early childhood and occasionally may develop during adolescence [1,43,47,49,52,53]. Differential diagnosis includes leukoplakia, chemical burns, trauma, irritation caused by tobacco smoke, and candidosis [1,13,49,50,53]. Treatment is not required unless mastication is compromised [1,43,51].

4.2 Peutz–Jeghers Syndrome: Peutz–Jeghers syndrome is an autosomal dominant disorder characterized by gastrointestinal polyposis and dark-colored spots on the skin and mucosa [1,13,44,54–57]. Hamartomatous polyps in the gastrointestinal tract can cause abdominal pain, chronic bleeding, anemia, and obstruction of the intestines [6,44,54–57], whereas 2 to 3% of the polyps show a tendency towards malignant transformation [1,6]. Polyps in the gastrointestinal tract may develop at any age, but pigmentations usually occur in early childhood [6,56,58]. Skin lesions are most commonly found around the eyes, on the fingers, and around the mouth, while intraorally, they are typically localized on the buccal mucosa and inner side of the lips [1,6,54,56–58]. Lesions are round or oval, 2–5mmin diameter

[1,6,27]. Their color varies from dark brown to black [6,27,58]. Lesions are asymptomatic, and the majority of intraoral ones fade before the first decade of life [54,56]. However, it is of major importance to diagnose the described changes in a timely manner and refer the patient to a gastroenterologist due to the possible progression of hamartomas towards malignancy [1,13,27,44,56,57].

4.3 Neurofibromatosis Type 1: Neurofibromatosis type 1, also referred to as von Recklinghausen's disease, is an inherited autosomal dominant disorder characterized by the growth of multiple benign tumors along the nerves and on the skin, neurofibromas [13,45,59–61]. In cases when it is localized on the head and neck, it usually affects the skin; however, neurofibromas in the mouth are not uncommon [45,59,61–64]. There, it is typically present in the form of a submucosal, soft, discreet mass of smaller diameter, mostly on the alveolar processus and palate [13,45,59,61–66]. Neurofibromatosis type 1 should be suspected in cases when the described changes are associated with multiple café-au-lait spots on the skin [13,45,59–61,64,66].

5. Benign Tumors :

Benign tumors are relatively often in oral cavities of newborns and children. The most frequent is fibroma, a benign connective tissue tumor, followed by hemangioma and lymphangioma [1,2].

5.1 Fibroma: One of the most common benign lesions of the oral cavity, fibroma, results from connective tissue proliferation, which is brought about by chronic irritation [1,2]. Fibromas can appear anywhere on the oral mucosa; however, they are typically located on the palate, tongue, buccal mucosa, or lips [2,67–69]. Most fibromas are less than 1 cm in diameter, their color does not differ much from the surrounding mucosa, and the tissue feels smooth and hard [1,2,67]. They can be pedunculated or dome-shaped and firmly attached to the base [2,67]. Treatment includes surgical removal and elimination of the source of irritation. Relapses are rare [2].

5.2 Hemangioma: Hemangiomas are benign, fast-growing, vascular hamartomas which may appear anywhere on the soft tissues but most frequently develop on the buccal mucosa, dorsum of the tongue, gums, and lips [2,68,70–75.] They are relatively frequent in children [1,2,68,73,74,76]. As for their clinical presentation, they have typical red color if they are localized closer to the surface; however, those located more deeply appear blue [1,2,75,77]. They protrude upward from the surface and feel moderately hard upon palpation. Hemangiomas appear very early in life and are more common in girls [2,72,74,76]. As for growth, they develop fast and progressively follow the child's growth dynamic [73]. They are usually painless but can ulcerate or bleed due to trauma. Treatment is by laser or surgical resection [2,70,73–76]. Due to the vascular nature of the tumor, the danger of excessive bleeding must be taken into consideration [2,70,77].

5.3 Lymphangioma: Lymphangiomas are benign tumors of the lymphatic system, usually present at birth, although they may also develop during infancy [2,74,78,79]. Intraorally they are most commonly found on the tongue but may also be located on the lips and buccal mucosa [2,74,79]. Superficially located tumors are soft upon palpation, pink, or red/bluish, while more deeply localized lesions may remain invisible from the surface [2,74]. Cystic hygroma is a sac-like large lymphangioma which may involve the tissues of the mouth floor and neck [2]. Every lymphangioma that presents a functional or esthetic defect should be removed surgically [2,74,79]. Relapses are quite frequent and are usually caused by the lack of a cyst wall [2].

6.Traumatic Lesions:

Mucoceles and ranulas are one of the most common salivary gland disorders, and they are classified as extravasation pseudocysts [80].

6.1 Mucocele: Mucocele develops as a consequence of mechanical trauma to a minor salivary gland [2,7,67,80–85], which is followed by saliva retention and accumulation inside the blocked and dilated excretory ducts of the gland [2,7,67,80–83,85–87]. Lesions are usually painless, with smooth surfaces, bluish or transparent [2,7,67,74,80–82,84,85,87]. Most are not larger than 1 cm in diameter. They are treated by surgical removal; at that time, the surgeon often decides to perform the ablation of the neighboring minor salivary glands in order to prevent relapses [2,7,74,82,83,85].

6.2 Ranula: Ranula shows many clinical similarities with mucocele. It is caused by trauma to the excretory duct of the salivary glands located in the floor of the mouth and is manifested as swelling [7,74,80,86,88]. It is very uncommon in newborns [7].

7. Recurrent Aphthous Lesions:

Recurrent aphthous lesions (or ulcerations) are the most frequent kind of ulcerations observed in children [17,89,90]. They appear on the oral mucosa in the form of smaller or larger, single or multiple painful ulcerations that recur in intervals [9,91]. Many factors are involved in the etiology, including immune system disorders, genetic factors, hormonal disbalance, chemical, microbial or physical irritation, allergic factors, and stress [9,89–96]. Clinical presentation includes the formation of round or ovoid lesions with well-defined margins, a necrotic center covered by a yellow–gray pseudomembrane, and an erythematous halo which is the sign of peripheral inflammation [9,89–

[91,93,97]. Considering the size, number, and duration of the lesion(s), three types of aphthous ulcerations may be differentiated:
1. Minor aphthae: lesions are typically less than 1 cm in diameter; they heal without scarring within 10 days .
2. Major aphthous ulcerations: more than 1 cm in diameter, they can last for up to 30 days and may leave scars.
3. Herpetiform aphthous ulcerations: multiple lesions, up to 3 mm in diameter; ulcerations may merge. Healing takes approximately 15 days [17,89,90,92–95,98,99] Differential diagnosis is aimed at differentiation between aphtae and herpetic gingivostomatitis, herpangina, and ulcerations caused by injury [9]. Treatment is usually symptomatic and implies the use of topical anesthetics for pain control, antiseptic mouthwashes to prevent secondary infections, and products that promote re-epithelialization [9,94,98]. Topical corticosteroids may also be applied; however, only in older children [9,90,91,93–95].

8. COVID-19 Infection:

Given that COVID-19 is a relatively new infection, the prevalence of oral lesions in COVID-19 infection, especially in children, is not known. The most frequently recorded oral lesions are blisters, ulcerations, and desquamating gingivitis. Ulcerations usually affect the dorsum of the tongue [100]. The presence of white plaques on the tongue that did not respond to local therapy and geographic tongue was also noted. Fungal infections, Herpes simplex, and Herpes zoster virus infections occurred as a result of stress and decreased immunity during the COVID-19 infection [100,101]. The Kawasaki-like symptoms, which include erythema, dryness, cracking, and bleeding of the oral mucosa, have been described as the most severe oral symptom [100].

9. Lichen planus:

Oral lichen planus is among the commonest oral mucosal disorders in adults while in children it has been infrequently described [102]. The etiological factor of lichen planus is unknown but neumerous factors have been associated as genetic factor, infection, systemic diseases, drug responses and hypersensitivity to dental constituents and vitamin insufficiencies, six forms of oral lichen planus have been clinically defined “reticular, atrophic, erosive, plaquelike, popular and bullous”, the buccal mucosa is the characteristic sites, also it is seen on the dorsum of the tongue and in fewer cases is seen at the gingiva[103] In children, in the differential diagnosis of erosive lesions and hyperkeratotic lesions of the oral mucosa, oral lichen planus should be included[104].

10.Pseudomembranous candidiasis:

Pseudomembranous candidiasis “is an opportunistic fungal infection initiated by Candida albicans”, it is commonly seen in children who currently had an antibiotics use or corticosteroids, or those had been exposed to prolonged use of a pacifier, also in children with certain systemic conditions such as leukemia, those undergoing chemotherapy or radiation therapy or have had an organ transplantation and malnutrition, it is an assurance oral finding[105]. Oral candidosis can be diagnosed by detection of the clinical signs and symptoms and the existence of the candida hyphae while analyzing a smear directly from the biopsy examination in the epithelium, also a positive microbiological culture with certain serological investigations can confirm the diagnosis[106]. Treatment can be a topical or systemic application of antifungal medications, topical nystatin for infants and topical nystatin or clotrimazole for older children while systemic fluconazole, ketoconazole or itraconazole can be used for pediatric patients who are at higher risk of evolving systemic infection[11].

11.Erythematous candidiasis:

Atrophic or erythematous candidiasis is acute or chronic rare lesions. Previously called as ‘antibiotic sore mouth,’ because it is associated with prolonged use of broad-spectrum antibiotics, also this form is associated with pseudomembranous candidiasis when the white plaque of pseudomembranous candidiasis is scrapped, often red atrophic and painful mucosa remains, furthermore, the erythematous stomatitis and depapillation of tongue arises due to the suppression of the traditional bacterial flora, the symptoms patient often describes includes vague pain or a burning sensation[107]

12.Frictional keratosis (Morsicatio buccarum)

The constant rubbing of the mucosa may cause white patches that can disappear if the causative agent habit is discontinued. Habits causing this finding include traumatic tooth brushing (toothbrush keratosis) and forcefully rubbing the tongue against the teeth (tongue thrust keratosis). The prevalence of frictional keratosis has been reported between 0.26% and 1.89% in children.[108,109] This condition is observed as a corrugated, gray or white lesion that may be smooth or rough and occasionally irregular with small loose tags of epithelium on the surface. The site of appearance is mostly the buccal mucosa. Treatment is removal of intraoral irritants and discontinuation of causative habits usually resolves this lesion.

13.Herpes-induced stomatitis:

Herpes Simplex Virus (HSV-1) is a double-stranded virus that causes most of the oral infections that transmitted from an infected person to another through the infected body fluids[110]. The diagnosis is based on the clinical manifestation of erythematous gingiva, mucosal bleeding and small erupted vesicles clustered all through the mouth,

in symptomatic children, treatment is focused on pain relief and prevention of dehydration by oral fluids until the infection subsides, however, most of the children will be Asymptomatic[111]

14.Petechiae, Purpura, Ecchymosis:

These are red lesions that often caused by damage affecting the underlying blood vessels and also a sign of bleeding disorders such as thrombocytopenia or hemophilia and may be associated with leukemia and anemia in some occasions, the prevalence of vascular lesions in children is 1.89-8.39% and increases to 42.8% in children with systemic diseases, the lesions are mainly seen on the lips, tongue, hard palate and gingiva and are classified as follows:

Petechiae: pinpoint hemorrhages
Purpura: 2-mm to 2-cm hemorrhages
Ecchymosis: >2 cm hemorrhages

Looking for the source of the trauma in the initial investigation is necessary to rule out the child abuse, all other medical conditions or medications-related lesions must be referred for more medical checkup[10].

15.Angular cheilitis:

This condition refers to the chronic inflammatory process at the skin and the labial mucosa at the corners of the mouth, many etiological factors may induce this condition as nutritional deficiencies mainly (riboflavin, folate), anemia (iron deficiency), allergy, infections, physical irritation, low socioeconomic status and bruxism [112,113]. The prevalence is 3% in children and 9% in the adolescent[113]. Angular cheilitis is described clinically as painful cracking, fissuring and erythema on bilateral commissures, bleeding could be associated, the treatment is related to the cause, for idiopathic causes, the treatment might be as simple as applying petrolatum to the affected areas, in most of the cases, angular cheilitis is infectious that is crucial to be appreciated and should be treated as such[114].

16.Median rhomboid glossitis:

Median rhomboid glossitis is an inflammatory lesion seen at the junction between the anterior two thirds and the posterior one third of the tongueanteriorely to the circumvallate papillae, it appears in elevated diamond shape, covered with smooth erythematous mucosa [115]. It is normally well-circumscribed, a smooth but nodular component is occasionally found or the lesion is often lobulated, the texture may be similar to the subjacent or firm part of the tongue and its surface is relatively soft [116]. Sometimes, soft palate erythema may be seen where the lesion of median rhomboid glossitis touches the palate, this erythematous area is termed as 'kissing lesion', generally, median rhomboid glossitis is asymptomatic, however, in few cases, pain and ulceration has been reported, in children prevalence has been reported between 0 and 1.23% [115,116,117].

Conclusion:

Oral mucosal lesions in children are not uncommon and many types of these lesions can be idiopathic or induced by underlying conditions or diseases, so, a complete examination and history taking should be carried out and sufficient knowledge of such lesions to reach the correct diagnosis and management.

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