AWARENESS OF ULCERATIVE LESIONS AMONG EASTERN ODISHA POPULATION

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ABSTRACT

BACKGROUND

Oral ulcers are one of the most common complaints of the patients. It can be determined by the underlying systemic condition such as the nature, site, duration and frequency. Because of the diversity in causes of oral ulceration, patients presenting with oral mucosal disease can be challenging to diagnose and manage. The objectives of this study were- 1. to evaluate the patient knowledge about ulcerative lesions of oral cavity & 2. to relate their socio-demographic characteristics.

MATERIALS & METHODS

The cross-sectional study of 200 patients with oral ulcers, were given two sectioned questionnaires in a language they understood. The first section, which tested oral ulcerative lesion awareness. Awareness was classified as very low (< or = 5 correct answers), low (6-10), medium (11-15) and high (16-20). The second section contained 10 questions pertaining to general opinions and views about the ulcers in relation to systemic disease.

RESULTS

None showed high disease awareness. Only disease duration influenced disease awareness significantly. Age, sex, marital status, occupation and education level had no relation to the level of awareness. A majority of patients resorted to use of alternative medicines during their disease course; however, with increasing awareness, the use of other types of therapy was reduced.

CONCLUSION

There are several systemic disorders that can present with similar clinical signs and symptoms, and knowledge of each disease is necessary. We should be more aware of non-healing oral ulcers; thus, clinician can provide appropriate therapy.

KEY WORDS

BCC- Basal Cell Carcinoma, ADCC- Adenoid Cystic Carcinoma, Leukoplakia, Erythroplakia

HOW TO CITE THIS ARTICLE: Champatyray S, Das SR, Mohanty I, et al. Awareness of ulcerative lesions among Eastern Odisha population. J. Evolution Med. Dent. Sci. 2019;8(10):723-727, DOI: 10.14260/jemds/2019/159

BACKGROUND

Oral ulcers are one of the most common complaints of the patients.¹ According to Robin Pathology ulcer is defined as breach in continuity of skin, epithelium or mucus membrane caused by sloughing out of inflamed necrotic tissue. They are also called as canker sores. It also refers to the damage to both epithelium & lamina propria.

'Financial or Other Competing Interest': None.
Submission 30-10-2018, Peer Review 21-02-2019,
Acceptance 28-02-2019, Published 11-03-2019.

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DOI: 10.14260/jemds/2019/159

Oral ulcers are determined by underlying systemic conditions which includes diabetics, tuberculosis. The oral mucosa serves as a protective barrier against trauma, pathogens & carcinogenic agents.² The aim of this paper states that it is a survey conducted among 300 patients in eastern Odisha population. It proves that all non-healing ulcers are not always cancerous, but it can be cancerous like squamous cell carcinoma, basal cell carcinoma, adenoid cystic carcinoma, which is lethal & life threatening for patients. This information can help to determine the epidemiology severity of oral ulcers in eastern Odisha population. It also serves as baseline for further studies with awareness among these population.

Triggering Factors

- Hard brushing.
- Accidental bite.
- Dental braces.
- Emotional stress.
- Hormonal changes during menstruation.
- Allergic.
- Food sensitivity to acidic foods.
- Lack of sleep disorder.
- Vitamin deficiency like vit B12, C, folate, iron.

Aim

To evaluate the patient knowledge about ulcerative lesions of oral cavity & relate sociodemographic characteristics.

MATERIALS AND METHODS

The cross-sectional study was conducted in eastern Odisha among 200 participants. The survey was done in each and every individual by using questionnaires. Convenience sampling method was used in the present study.

Statistical Analysis

One-Way ANOVA (Analysis of Variance) was used for the comparison between the groups and Chi-square test was applied for age, sex and ASA grades. P value of < 0.05 was considered significant.

RESULTS

Sex	Male	44.2 %
	Female	55.8 %
Education	Medico	43 %
	Non medico	56.2 %
Do u have any habit?	Tobacco	9.7 %
	Gutkha	14.6 %
	Pan	45 %
	Smoking	21.4 %
	Alcohol	8.7 %
Family history of ulcer?	Yes	66.1 %
	No	27.5 %

Is there any history of trauma associated with ulcer?	a) Sharp tooth b) Faulty restoration c) Denture wearing d) Stress	70.3 % 18.9 % 5.3 % 5.4 %
Where was the ulcer located?	Lip Tongue Buccal mucosa Palate	25.3 % 19 % 52.5 %
What is the size of ulcer?	a) < 1 mm in diameter b) > 1 mm in diameter	18.2 % 81.8 %
What is the duration of ulcer?	a) < 1 week b) > 1 week	84 % 16 %
Does the Ulcer heals Without any medication? Was it painful or not?	Yes No Yes No	54 % 45 % 54.9 % 45 %
Have you taken any treatment for ulcer?	Yes No	64.7 % 35.3 %
Do you have applied any topical application for it?	Yes No	55.6 % 44.4 %
Are you suffering from systemic diseases?	a) Diabetes b) Tuberculosis c) Syphilis d) viral infection g) Immunocompromised	21 % 6.6 % 2.2 % 72.3 %
Have you undergone any systemic steroid therapy for ulcer?	Yes No	7.6 % 92.4 %

DISCUSSION

Based on the survey conducted among awareness of ulcerative lesions in eastern Odisha population. The prevalence of oral ulcerative lesions in India is 4 %. In comparison to other the prevalence of ulcerative lesion is higher 8.4 % to 25 %. Most of the ulceration are caused due to local cause such as trauma, self-elicited injuries like cheek-biting, stress, sharp edges of the tooth.

According to age males are 44.2 % & females are 55.8 % found in our survey. Comparing previous surveys by Ali et al³ found that older age patients are in higher risk than younger.

In comparison with the habit pan chewing habit has higher % than tobacco & alcohol, but comparing with Ali et al shows higher % in tobacco & alcohol. So, it is concordance in our survey.

In the present survey buccal mucosa has 52.5 % (Higher). In concordance to other studies like Ali et al they found 49.1% on the buccal mucosa.

Other location like linea alba, Fordyce granules, are included by Ali et al but the present survey does not include all these locations. Similarly, traumatic ulcers are most common ulceration of oral cavity. In the present survey we found 5.5% are cases of traumatic ulcer.

In comparison to different systemic diseases affecting ulcers caused by viral infection. It is about 72.4 % (High). Present survey also reveals higher risk factors through viral infection. It is concordance with Byakodi et al.³

In the present survey we found 92.4 % of population did not underwent for any systemic steroid therapy for ulcer. According to the site & size of the ulcer present the survey 18.2 % has more than 1 mm in diameter which clarifies non healing ulcer 55.6 %. It is cancerous, lethal, life threatening for the individuals who are affecting. Even though it is very rare, the dental clinician should be aware for any suspicious lesions. Non traumatic ulcers, white patch (leukoplakia), white patch with red erythematous areas (Erythroplakia), long term non healing ulcers like squamous cell carcinoma, basal cell carcinoma with the presence of indurated margins are suspicious lesion which would make the lesion aggressive, cancerous & further investigation can be done.

Differential Diagnosis of Ulcers of Oral Mucosa⁴

Varicella

Establishes latency in nerve ganglia after the primary infection. The reactivation of virus later in life can cause mono- or polyneuropathy. In the present study we describe the oral lesions associated with VZV (varicella zoster virus) infections in normal children.^{5,6}

Herpangina

Viral illness that's most often seen in children aged three to 10, but it can occur at any age. Sores appear in the mouth and throat, as well as on the feet, hands and buttocks. They usually have a white base and a red border and may be very painful. Fever, headache, sore throat or difficulty swallowing may also occur.^{5,6,7}

Recurrent Aphthous Stomatitis

Starts in childhood or adolescence with recurrent small, round, or ovoid ulcers with circumscribed margins, erythematous haloes, and yellow or gray floors. It affects at least 20% of the population, and its natural course is one of eventual remission.

There are 3 main clinical types-

1. Minor aphthous ulcers (80% of all aphthae) are less than 5 mm in diameter and heal in 7 to 14 days
2. Major aphthous ulcers are large ulcers that heal slowly over weeks or months with scarring
3. Herpetiform ulcers are multiple pinpoint ulcers that heal within about a month.⁷

Behcet's Disease

Multisystemic, chronic, relapsing vasculitis that affects nearly all organs and systems. The disease can lead to numerous signs and symptoms that may seem unrelated at first. They may include mouth sores, eye inflammation, skin rashes and lesions.⁷

Stevens-Johnson Syndrome

It is a rare, serious disorder of skin and mucous membranes. It's usually a reaction to a medication or an infection. Often, it begins with flu-like symptoms, followed by a painful red or purplish rash that spreads and blisters.

Traumatic Ulcer

The result of traumatic injuries related to carious, fractured, or abnormal teeth; involuntary movements of the tongue and mandible; ill-fitting maxillary and/or mandibular dentures; overheated foods; and xerostomia.

Verrucous Carcinoma

Is an uncommon variant of squamous cell carcinoma. This form of cancer is often seen in those who chew tobacco or use snuff orally, so much so that it is sometimes referred to as "Snuff dipper's cancer." Most patients with verrucous carcinoma have a good prognosis.

Primary Herpetic Gingivostomatitis

Herpetic gingivostomatitis is often the initial presentation during the first ("Primary") herpes simplex infection. It is of greater severity than herpes labialis (Cold Sores) which is often the subsequent presentations. Primary herpetic gingivostomatitis is the most common viral infection of the mouth.^{5,7}

Recurrent Herpetic Stomatitis

Orolabial herpes is a combination of gingivitis and stomatitis, or an inflammation of the oral mucosa and gingival.^{6,7}

Bacterial Causes of Ulceration

Treponema pallidum Syphilis is a well-known disorder with a long history in medicine. The disease is caused by the spirochete Treponema pallidum and has 3 temporally distinct phases. Primary syphilis occurs as a chancre at the site of initial infection. Oral chancres are well known as the result of orogenital contact. Chancres initially appear as a small papule that elevates, enlarges, erodes, and becomes ulcerated. The lesion is usually punched-out, indurated and approximately 2-3 cm in diameter without a red inflammatory border. The surface is covered by a yellowish, highly infectious, serous discharge. Chancres typically last 2 to 4 weeks and heal spontaneously. Secondary syphilis presents with either oral lesions including red macules, pharyngitis, or isolated/multiple painless, shallow, and highly infectious ulcers surrounded by an erythematous halo. The borders are irregular and may resemble "snail tracks." Tertiary syphilis occurs in approximately 30% of untreated syphilis cases appearing many years after initial infection. It is primarily characterized by gummas, palatal perforation, and neurological symptoms.

Human Immunodeficiency Virus (HIV)

Infection can cause a variety of oral ulcers including severe necrotic ulcers of unknown aetiology. These ulcers are painful and can cause dysphagia. Buccal and pharyngeal mucosa is most commonly affected.

Oral Lichen Planus

It is a vesiculobullous lesion which affect skin and mucous membrane. The most common intraoral site is the buccal mucosa; however, the tongue, lips, palate, gingiva, and floor of the mouth can also be affected.

Future Prospective

For the clinicians, early detection of any oral lesion in the oral cavity which was not healed for more than 15- 30 days. It can be cancerous. So proper investigations like toluidine blue, punch biopsy, brush biopsy, incisional biopsy is done to rule out proper clinical diagnosis of any ulcerative lesion in the oral cavity.

CONCLUSION

The results of the present study provide information about awareness among eastern Odisha population regarding oral ulcers. Periodic continuing education should cover oral ulcers. Sometimes it could be an incidental finding which can be associated with carcinoma. So, it is a task for each dental surgeon to have thorough knowledge to identify & differentiate each of these ulcers affecting oral & perioral structures. Prompt diagnosis, appropriate treatment & appropriate referrals are crucial in the handling of any patient presenting with oral ulcers.

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