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Case Report

A Case Report of Traumatic Ulcer Leading To Squamous Cell Carcinoma

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ABSTRACT:
Traumatic ulcers in mouth occur due to injuries like impingement of sharp teeth, biting, dental appliances. Mostly they are benign which subsides within a week, but sometimes they may present for longtime due to chronic trauma leading to non-healing ulcer and likely have tendency to transform into malignancy. To prevent the development of oral squamous cell carcinoma from traumatic ulcers requires early identification and prompt treatment of chronic ulcers.

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INTRODUCTION

Oral ulcers are frequent lesions resulting from many underlying etiologic factors. Traumatic ulcers are most Common on the buccal mucosa, tongue and lower lips. They may result from physical, Chemical or thermal Injuries. Teeth can alter the soft tissues of the mouth due to improper positioning. Sharp (or) jagged edges due to tooth decay (or) fractures, (or) defective restorations. It has slightly raised dan reddish borders covered with a yellowish-white necrotic pseudo membrane that can be wiped off. Oral ulcers may present in Various forms and have multiple etiologies. ulcers may form result of ulcer is local or systemic causes, oral most often benign, yet the elimination of Oral Squamous cell carcinoma must be an absolute priority. Traumatic ulcers typically painless three days after the injury has healed and usually heal in 10 days. Due to recurrent insults to the tissues, these lesions may last for a few days or even several weeks, particularly in the case of tongue ulcers. Chronic traumatic ulcers generally have a characteristic appearance in the form of a single ulcer with irregular edges, a slightly concave yellowish base, sometimes accompanied by induration, and oval shape.

CASE REPORT

A 47-year-old male patient came to the department of oral medicine and radiology with a chief complaint of pain on left side of tongue since 1 year. H/o pain while eating. H/o burning sensation on taking spicy foods.Pt gave h/o ulcer since1 year.Pt gives h/o trauma due to sharp teeth(as said by dentist when visited 1 year ago and was asked to get teeth rounded off but pt didn't get the treatment done). The ulcer started as small lesion and increased in size to attain present size. Patient gives history of smoking: 5 / day for 10 years and quit the habit 10 years ago and drinking on family gatherings and festivalssince 10 years. (once or twice a month)

On intraoral examination a solitary ulcer of size approximately 1.5x3cm seen involving left lateral border of tongue extending anteroposteriorly 1cm away from tip of tongue to posterior 2/3rd of tongue with irregular borders and superoinferiorly at the level of occlusion on lateral border on ventral surface.On palpation ulcer is non tender on palpation, firm in consistency, rough in texture. Ulcer is greyish white with erythematous areas. Borders are irregular, margins are everted. Base is indurated. Sharp cusps are present irt 34,35,36. Provisional diagnosis is given as Non healing ulcer involving left lateral border on ventral surface of tongue. INVESTIGATIONS

Advised are toluidine blue staining, punch biopsy and blood investigations(CBP, BT, CT, HBsAg, Tridot).TOLUIDINE BLUE STAINING was done and stain retained suggestive of dysplastic features.Histopathology reveals well differentiated squamous cell carcinoma.

Figure 1: Non Healing Ulcer on Left Lateral Border of Tongue

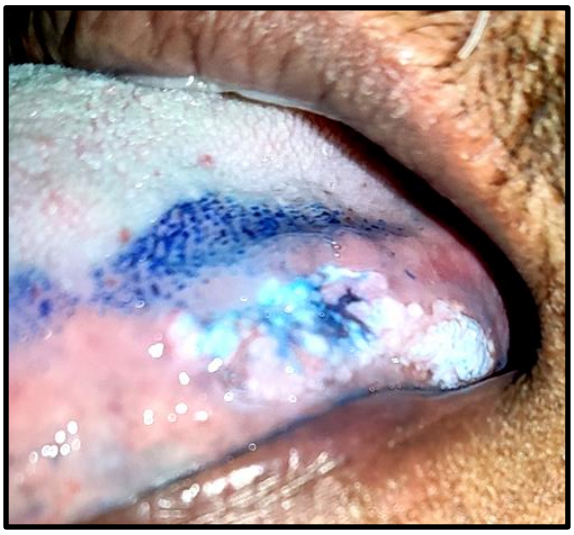


Figure 2: Toluidine Blue Staining; Result Positive

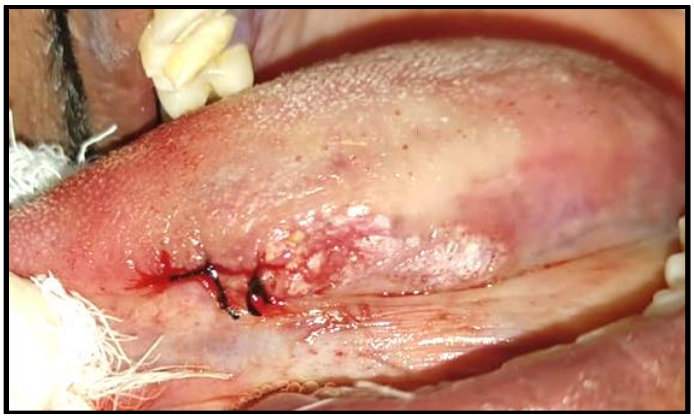


Figure 3: Incisional Biopsy and Suturing Done

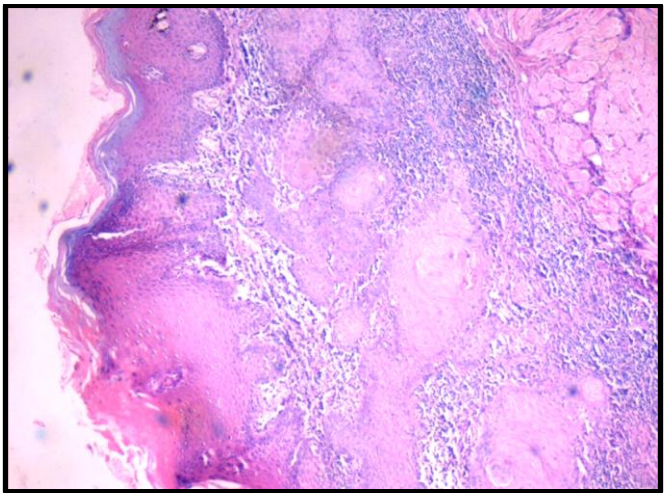
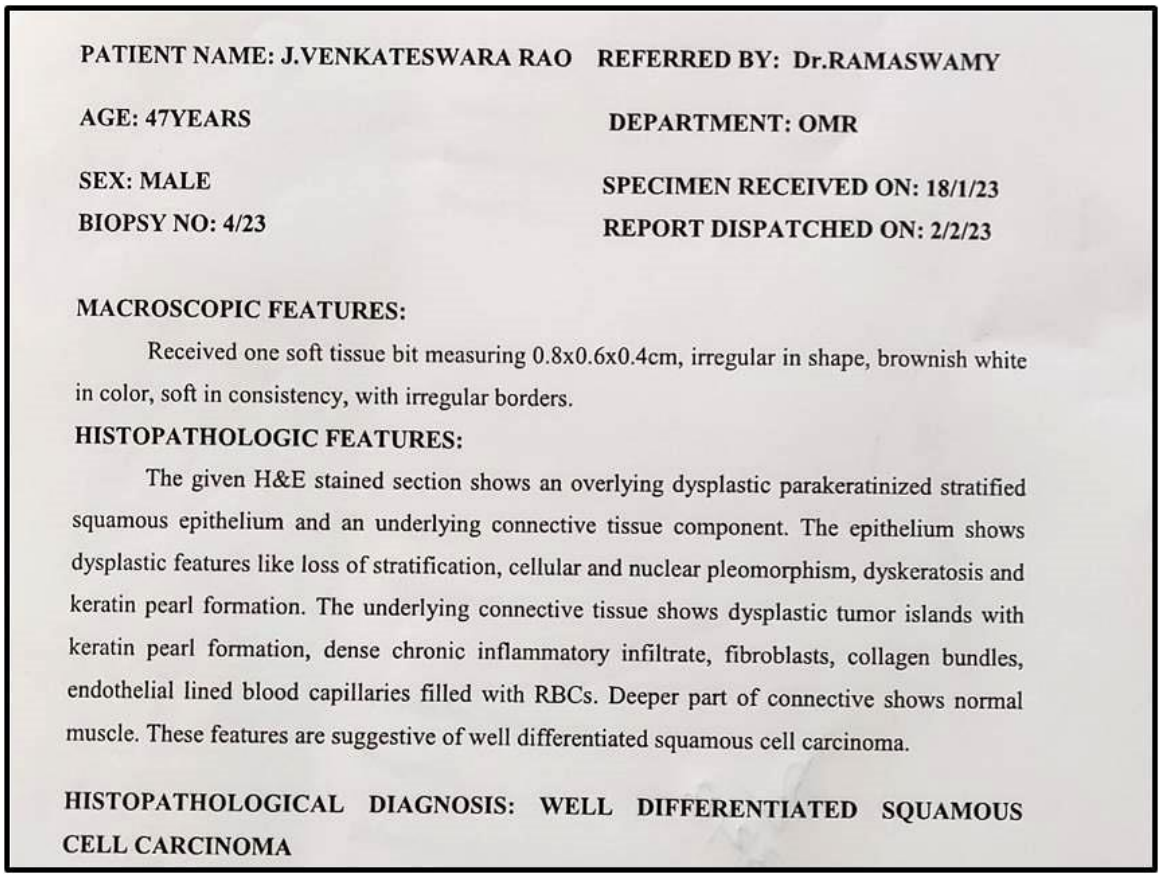


Figure 4: Histopathology Image

Patient Name	: Mr . VENKATESWARA RAO J	**Age / Gender**	: 47Y / Male
OP Reg No	: OP4410007417	**Lab Order No**	: 20230118-118
Referred By	: Dr.ORAL MEDICINE AND REDIOLOGY	**Req Date**	: 18-01-2023 12:32 PM
Reported On	: 18-01-2023 12:45 PM	**Printed Date**	: 18-01-2023 12:48 PM

Test Name	Result	Units	Reference Range
DEPARTMENT OF HAEMATOLOGY			
COMPLETE BLOOD PICTURE			
Hemoglobin	15.0	gm%	Male : 12.0 – 18.0 gm % Female: 11.0 – 16.0 gm %
RBC count	6.00	mill/cumm	3.5 - 5.5 mill/cumm
PCV	45.5	PERCENTAGE	40-50%
MCV	75.8	FENTO/LITERS	80-100FL
MCH	25.0	PICO/GRAMS	27-32Pg
MCHC	33.0	GRAM/DESI LITERS	32-34g/dl
RDW	12.9	PERCENTAGE	11.6-14.0%
Platelet Count	2.60	Laks /cumm	1.5—4.5Lakh/cumm
Total WBC count	9.48	cumm	4,000 – 11,000/cumm
DIFFERENTIAL COUNT			
Neutrophils	53	%	55 – 70%
Lymphocytes	34	%	25 – 40%
Eosinophils	08	%	01 - 08%
Monocytes	05	%	02 – 06%
Basophils	100	%	00 – 01%
BT CT			
Bleeding Time	1 MIN 05 SEC		1 - 3 minutes
Clotting Time	3 MIN 45 SEC		3 - 7 minutes
DEPARTMENT OF IMMUNOLOGY			
HIV			
HIV I	NON REACTIVE		
HIV II	NON REACTIVE		
HBs Ag			
HBs Ag	NEGATIVE		

Figure 5: Blood Investigations



PATIENT NAME: J.VENKATESWARA RAO REFERRED BY: Dr.RAMASWAMY

AGE: 47YEARS DEPARTMENT: OMR

SEX: MALE SPECIMEN RECEIVED ON: 18/1/23

BIOPSY NO: 4/23 REPORT DISPATCHED ON: 2/2/23

MACROSCOPIC FEATURES:

Received one soft tissue bit measuring 0.8x0.6x0.4cm, irregular in shape, brownish white in color, soft in consistency, with irregular borders.

HISTOPATHOLOGIC FEATURES:

The given H&E stained section shows an overlying dysplastic parakeratinized stratified squamous epithelium and an underlying connective tissue component. The epithelium shows dysplastic features like loss of stratification, cellular and nuclear pleomorphism, dyskeratosis and keratin pearl formation. The underlying connective tissue shows dysplastic tumor islands with keratin pearl formation, dense chronic inflammatory infiltrate, fibroblasts, collagen bundles, endothelial lined blood capillaries filled with RBCs. Deeper part of connective shows normal muscle. These features are suggestive of well differentiated squamous cell carcinoma.

HISTOPATHOLOGICAL DIAGNOSIS: WELL DIFFERENTIATED SQUAMOUS CELL CARCINOMA

Figure 6: Biopsy Report

DISCUSSION

An ulcer is a break in the skin or mucous membrane, causing loss of surface tissue and disintegration of epithelial tissue. Oral ulcers damage the epithelium and connective tissue, causing loss of texture. They typically go through three stages: extension, transition, and healing. Acute ulcers usually heal within two weeks, while chronic ulcers can become exophytic, recurrent, and persistent. A thorough medical history and clinical evaluation are necessary to identify the source of an ulcer. Non-healing ulcers require a histological evaluation. Topical ozonated oil treatment and underlying cause elimination successfully treated tongue ulcers, indicating reversible early dysplastic lesions. Growth factors, saliva, and secretory immunoglobulin A promote spontaneous repair of oral mucosal ulcers. Short-course topical corticosteroids are recommended for oral mucosal disorders. Co2 laser therapy is recommended for faster healing and less pain. Histological analysis is necessary for all ulcers, with incisional biopsy for tiny ones. Punch or scalpel biopsies are recommended for better preservation of tissue histology. Squamous Cell Carcinoma is a malignant tumor originating from dysplastic surface epithelium, characterized by invasive islands and cords of malignant squamous epithelial cells. The tumor destroys normal tissue, muscle, or bone, and may cause necrosis. Low grade, grade I (or) well differentiated - tumour that is mature enough to closely resemble its tissue of origin tumor that often grows at a slightly lower pace.

grade II, moderately differentiated-tumor with a microscopic appearance somewhere between grade these extremes. High grade, grade III/IV, poorly differentiated (or) Anaplastic - a tumor with marked pleomorphism and Little (or) no Keratin production may so immature that is difficult to identify the tissue of origin.

CONCLUSION

The clinical appearance of traumatic lesions varies greatly and can often be ambiguous. Chronic Traumatic Ulcers lesions have a significant role in the development of oral carcinogenesis; hence it is critical to obtain a precise diagnosis and treat them as soon as possible.

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