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Exophytic Solitary Ulcerated Chronic Lesion of the Mouth; What Diagnosis and Treatment.

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ABSTRACT

Ulcer constitutes loss of tissue involving the whole epithelium, that may affect connective tissue. It has typical features: central crater, relieved edges, yellow area. This primary lesion may be a sign of various diseases of the mouth, whose diagnosis might be quite challenging, because may range over many conditions like traumatic lesions, inflammatory diseases, infections, cancer, autoimmune diseases, topical application of drugs. To find a diagnostic classification it's important to recognize ulcers in acute or chronic, multiple or solitary, symptomatic or not. The authors report the case of a 46 year old man who presented at Martini hospital in Turin with the main complaint of the presence for 5 months of a asymptomatic exophytic ulcerated lesion of the oral mucosa, treated by the authors with complete excision and placement of PRF and medicated gauze.

Keywords: biopsy, oral ulcers, PRF, RAS, surgery.

INTRODUCTION

Ulceration is the most common lesion of the oral mucosa, manifestation of many local and general disorders.
The ulcer is a loss of substance due to a pathological process, which involves the whole epithelium, more or less deeply the lamina propria, tissues, surrounding organs, in certain pathological form (such as cancer) can reach, affect, overcome periosteum, muscles, bone.
It distinguishes from erosion because erosion constitutes a superficial loss of epithelium, so ulcer is due to a much deeper loss of tissue than erosion, in which the whole epithelium is breached.
Ulcers are distinct in single or multiple, acute, chronic (if they last longer than 15 days) and recurrent if they alternate periods of healing at periods of appearance.
A wide spectrum of disorders can give rise to oral mucosal ulcer, which is a benign condition, rarely addresses to severe systemic illness.[1]

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Due to diversity of causative factors and presenting features, diagnosis of oral ulcerative lesions might be quite challenging.[2]

CASE REPORT

A 46 year old healthy man presented at our attention with the complaint of the presence for 5 months of an asymptomatic exophytic ulcerated lesion of the vestibular oral mucosa of the lower lip, measuring approximately 2 cm.
The patient didn't report any illness, any allergies, he didn't take any drugs and he reported that he was subjected to two biopsies that had aspecific outcome.
He underwent to some blood analysis (complete blood count and differential, iron, transferrin, ferritin, vitamin B12, folic acid) to investigate his health, to look for some infections like HIV, HSV 1-2, CMV, HVZ, HBV, it was investigated transglutaminase, anti-gliadin, anti-endomysial antibodies, to search for celiac disease with negative outcome.
After local anaesthesia, the lesion underwent to total excision, and sent for histological examination. In the surgical site it was positioned a PRF membrane obtained by venous blood sample, contextually to surgical procedure, centrifugation at 27,000 rpm for 12 minutes in accordance with the Chaukroun technique, using centrifuge EBA 20 (Hettich Zentrifugen) in order to protect the surgical site, to promote soft tissue healing; then it

was sutured a medicated gauze of antibiotic and ialuronic acid (Altergen 2mg+40mg).
After 10 days the medicated gauze was removed: the lesion showed the healing process with fibrin and positive effects of PRF on wound healing.
The Histopathological diagnosis describes oral mucosa ulceration with neutrophilic granulocyte infiltrate on surface; the underlying granulation tissue is surrounded by a diffuse inflammatory infiltrate lymphoplasmacellular, histiocytic with mastocitic component. The epithelium shows hyperplasia, acanthosis, iperparacheratosis.
The pathological diagnosis is ulcerative oral lesion compatible with afta maior.

Figure 1: Exophytic ulcerated lesion of the vestibular oral mucosa of the lower lip

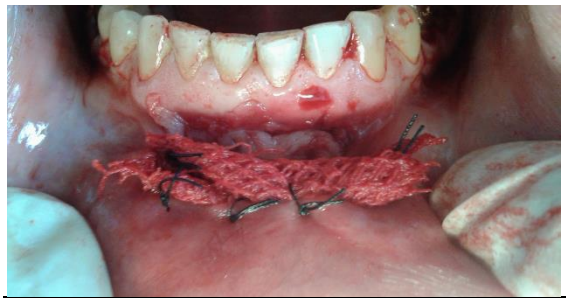

Figure 2: PRF membrane and medicated gauze of antibiotic and Ialuronic acid.

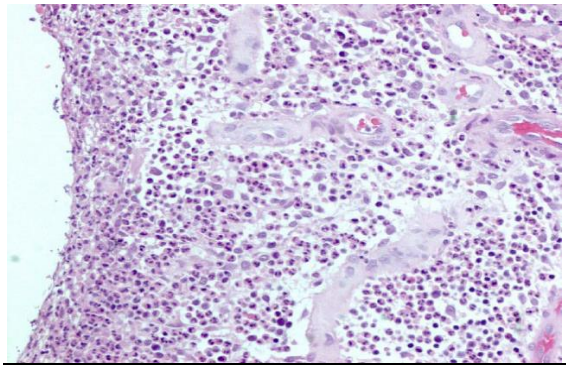

Figure 3: Neutrophilic Granulocyte Infiltrate On Surface; In Thr Underlying Granulation Tissue Diffuse Inflammatory Infiltrate Lymphoplasmacellular, Histiocytic With Mastocitic Component. The Epithelium Shows Hyperplasia, Acanthosis, Iperparacheratosis.

DISCUSSION

Oral ulcers are classified into two main groups: acute ulcers with abrupt onset, short duration and chronic ulcers with slow onset, insidious progression. It is generally accepted that an oral ulcer has become chronic last for >2 weeks.[3]
Recurrent ulcers, on the other hand, present with a history of similar episodes with intermittent healing.[4]
Ulcer may be single or solitary ulcer, or multiple.
Chronic and mechanical injuries of oral mucosa, like biting, overextended flanges of a denture, sharp cusps may lead to solitary long standing ulcerative lesions, that heal after the remove of the injures, occur on the oral mucosa as ulcerative areas surrounding a central removable, yellow fibrinopurulent membrane[2]. Such ulcers may have been present for several weeks and may be deep crater-like lesions with rolled edges which are indurated on palpation because of surrounding fibrosis.[12]
Another cause might be the topical application of some drugs, like aspirin, that determinates chemical burns, dose- and time-related.
The reactions vary in severity from oedema through to necrosis of the epithelium. The oedematous epithelium resembles leukoedema; the necrotic epithelium presents as soggy white plaques which slough off to leave areas of ulceration.[5]
Differentiation from a neoplastic ulcer may, therefore, be difficult. Biopsy is indicated when a presumed traumatic ulcer does not shown signs of healing within 10 days.
There is a group of idiopathic ulcers whose natural history is characterized by frequent recurrences over a number of years. It is to this group that the collective term recurrent aphthous stomatitis is applied (RAS). Three types of ulcers are recognized, based primarily on their clinical features: minor aphthous ulcers, major aphthous ulcers, herpetiform ulcers. In addition, any of the three types may be associated with Behcet's disease.
Minor aphthous ulceration accounts for 80 per cent or more cases of RAS. They occur from one to five, shallow, round or oval ulcers which affect the non-keratinized areas of the oral mucosa. The ulcers are less than 10 mm in diameter, have a grey/yellow base with an erythematous margin. They heal without scarring, usually within about 10 days, they tend to recur at 1-4 month intervals, although this is very variable.[6]
Major aphthous are usually greater than 10 mm in diameter. They may occur anywhere in the mouth. The number varies from one to ten, they may take 4-6 weeks to heal, may heal with scarring.
It should be appreciated that major and minor aphthae represent a spectrum of the same disease process and intermediate forms may be seen.[7]

Herpetiform ulceration is characterized by multiple, small, pin-head sized ulcers (about 1-2 mm across) that can occur on any part of the oral mucosa. The ulcers usually heal within 2-3 weeks. The ulcers tend to recur at less than monthly intervals and, as for major aphthae, may be associated with severe discomfort. It is the least common type of ulceration associated with RAS, it tends to occur in an older age group compared to minor and major aphthae.[8]

The aetiology of RAS is unclear, but the damaging immune responses are involved. RAS has been reported in patients with a variety of gastrointestinal diseases, some of which are associated with secondary haematological abnormalities as a result of malabsorption or chronic blood loss. An association with coeliac disease is well recognized. RAS may also be seen in patients with ulcerative colitis and Crohn's disease.[9]

Behcet's disease is characterized by recurrent aphthous stomatitis and at least two of the following: genital ulcers, eye lesions, skin lesions, or rapid acute inflammation of skin in response to minor trauma. It is seen mainly in countries from the eastern Mediterranean area to the Far East, rare in Western countries.

There is a strong genetic link with the histocompatibility antigen HLA-B51 in patients from these countries.

Furthermore immune-mediated mucosal damage and vasculitis associated with the hyperactivity of polymorph neutrophils are involved in the pathogenesis of the lesions.[11]

About chronic solitary ulcers it can be distinguished Long-standing traumatic ulcers, Necrotizing sialometaplasia, Eosinophilic ulcer, Ulcerative squamous cell carcinoma, Cytomegalovirus-associated ulceration, Tuberculous ulcer, Syphilitic ulceration (chancre).

A single ulcer with indurated borders, self-limiting after 5 to 7 weeks, above all in the hard palate, with well-kown direct trauma like anaesthesia deposes for Necrotising sialometaplasia.

Eosinophilic ulcer of the oral mucosa is a benign, reactive, and self-limiting lesion, with unclear pathogenesis, manifesting as a rapidly developing solitary ulcer. It is often seen on the tongue as a chronic, well-demarcated ulcer which may mimic a squamous cell carcinoma. Histopathological examination shows polymorphic inflammatory infiltrate, rich in eosinophilis, involving the superficial mucosa, and the deeper muscle layer. The therapy is surgical.[13]

Oral cancer in later stages can appear as an indurated, non-healding ulcer with elevated margins, biopsy is mandatory.

Cytomegalovirus (CMV), known as human herpesvirus type 5, is a DNA virus that belongs to the betaherpes subfamily of the herpesviridae family. It may be transmitted by biological liquids or transplantations. Immunodepressed individuals develop the disease, immunocompetents are asymptomatic.

Oral ulcers are usually single, rarely multiple, painful, large, and necrotic, with minimally rolled border, which affects keratinized and non keratinized mucosa. Diagnosis is based on the presence of typical clinical signs and symptoms and identification of characteristic inclusion corpuscles in histopathology, combined with detection of CMV in the blood and/or involved organs.[14]

Tubercolosis is a chronic infection disease, it can affect any part of body including the oral cavity, where it can manifest as a non healding, tender ulcer on the oral mucosa.[15]

Syphilis is a sexual transmitted infection transmitted by Treponema Pallidum, Primary syphilic chancre most often involved genitalia , also extragenital lesions are reported. In the oral cavity the Syphilic lesion appears as erythematous indurated nodule with ulcer.[16]

If multiple ulcers involve lips with skin lesion the diagnosis may be Erythema Multiforme.

Finally it has to consider the possibility of same diseases like leukaemia so it has to perform the full blood count plus bone morrow biopsy, Lupus erithematosus (biopsy plus immunofluorescence), Crohn’s disease or ulcerative colites (biopsy plus gastroenteterological tests).[17]

CONCLUSION

Our report highlights as diagnosis of oral ulcerative lesions might be quite challenging but also the role of PRF in oral healing.

PRF is the form of a platelet gel. it protects the surgical site and promotes soft tissue healing. supports neoangiogenesis, considered as a natural fibrin based biomaterial, favourable to the development of a micro vascularisation and it guide epithelial cell migration to its surface.

It’s an accepted minimally invasive technique with minimal risks and good clinical results.

REFERENCES

1. Chiara Giorgini et al. A proposito di un caso di aftosi orogenitale: inquadramento clinico e diagnosi differenziale. Boll Soc Med Chir Pavia 2013;126(3):539-544
2. Mortazavi H et al. Diagnostic Features of Common Oral Ulcerative Lesions: An Updated Decision Tree. Hindawi Publishing Corporation International Journal of Dentistry Volume 2016, Article ID 7278925, 14 pages http://dx.doi.org/10.1155/2016/7278925
3. M. Munoz-Corcuera, G. Esparza-Gomez, M. A. GonzalezMoles,andA.Bascones-Mart´ınez,“Oralulcers:clinicalaspects. A tool for dermatologists. Part I. Acute ulcers,”Clinical and ExperimentalDermatology,vol.34,no.3,pp.289–294,2009.

4. Compilato D. et al. La gestione delle ulcere orali persistenti. Dental Clinics. Anno – n°3-settembre 2007
5. Favia G. Manifestazioni oro-facciali di Malattie Sistemiche e Generalizzate. Schena Editore 2005
6. Vaillant L, Samimi M. Aphthous ulcers and oral ulcerations. Presse Med 2016 Feb;45(2):215-26.doi:10.1016/j.lpm.2016.01.005. Epub 2016 Feb 12
7. Boldo A. Major recurrent aphthous ulceration: case report and review of the literature. Conn Med.2008 May;72(5):271-3
8. Viguir M, Fouere S, Pascal F, Morel P. Ann Dermatol Venereol. 2000 Aug-Sep;127(8-9):707-10
9. Edgar NR, Saleh D, Miller RA. Recurrent Aphtous Stomatitis: A Review. J Clin Aesthet Dermatol. 2017 Mar; 10 (3):26-36. Epub 2017 Mar
10. Eversole LR. Immunopathogenesis of oral lichen planus and recurrent aphthous stomatitis. Semin Cutan Med Surg. 1997 Dec;16(4):284-94
11. Oh SH, Han EC, Lee JH, Bang D. Comparision of the clinical features of recurrent aphthous stomatitis and Behcet's disease. Clin Exp Dermatol. 2009 Aug; 34 (6):e 208-12 doi:10.1111/j.1365-2230.2009.03384. Epub 2009 Jun 17
12. Gilvetti C, Porter SR, Fedele S. Traumatic chemical oral ulceration: a case report and review of the literature. Br Dent J. 2010 Apr 10;208(7):297-300. Doi:10.1038/sj.bdj.2010.295
13. Dhanrajani P1, Cropley PW2. Oral eosinophilic or traumatic ulcer: A case report and brief review. Natl J Maxillofac Surg. 2015 Jul-Dec;6(2):237-40.
14. Neumann A, Chiaratti F, Daxbacher E, Jeunon T. Cutaneous involvement by cytomegalovirus in a renal transplant recipient as an indicator of severe systemic infection. An Bras Dermatol. 2016;91(1):80-3
15. N. Aoun, G El-hajj, S. El Toum. Oral ulcer: un uncommon site in primary tuberculosis. Oral Australian Dental Journal 2015;60; 119-122.
16. Xin Yu, Heyi Zheng. Syphilic chancre of the lips transmitted by Kissing. A case report and review of the Literature. Medicine. Volume 95, Number 14, April 2016.
17. Gandolfo S, Scully C, Carrozzo M, Oral Medicine Elselvier 2006.

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