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CORRELATION OF IRON DEFICIENCY WITH SYMPTOMS OF MUCOSITIS: STUDY OF 19 CASES REPORTED TO PRIVATE CLINIC DURING SPAN OF 5 YEARS.

Oral Pathology

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ABSTRACT

Objective: To assess severity of oral ulcers & its correlation with iron deficiency.

Methodology: The data for this survey was collected from 19 female patients reported to a private clinic during 2013 to 2018. Demographic data and data assessing oral health will be collected from each subject in single appointment. Locations of oral ulcers were noted down in data sheet along with other soft tissue findings. Size, borders & associated pain were noted down in examination sheet. Ulcers were classified according to severity according to their size, borders & associated pain. Female patients of the subjects were subjected to complete hemogram All data was tabulated to draw conclusion.

Results: The data was analyzed from 19 female subjects. The findings suggested that most common location for oral ulcer noted was buccal mucosa. Right buccal mucosa was affected more as compared to left buccal mucosa. Other predominant locations were lateral border of tongue & lip in decreasing order of severity. Size of the ulcers were ranging from 4mm to 12 mm with mean size as 7mm. Mucosa adjacent to ulcer was erythematous in 9 cases, normal colored in 7 and of grey colored in 1 case. Mean Hb value of the subjects was 8.8 gm/dl with range from 6gm/dl to 12gm/dl. Size of the ulcer was found to be clinically significant to that of low Hb scores.

Conclusion: Oral ulcers have more size & increased severity in patients with iron deficiency.

KEYWORDS

oral ulcers, mucositis, iron deficiency anemia.

INTRODUCTION:

An ulcer is a breach in the integrity of the covering epithelium. Traumatic ulceration is common in the oral cavity. For relatively common conditions such as recurrent herpetic vesiculoulcers and aphthous ulcers, presumptive diagnoses are often made without recourse to laboratory tests The most frequent cause is mechanical injury from the teeth; such ulcers occur on the buccal mucosa, lateral tongue and lower lip in the occlusal plane. Ulcers at other sites can be caused by habits or even deliberate self-harm. Ill-fitting dentures may also cause traumatic ulceration. Sharp foodstuffs may cause traumatic ulceration of the palate. Thermal injuries are common at this site from over-hot drinks. Ulcers occur in the mouth with considerable frequency.

Iron deficiency is the leading cause of anemia in Indian females. One of the features of low Hb values is mucositis which is characterized by recurrent oral ulceration. The sites for such oral ulcerations were depicted as buccal mucosa & lips in present literature. This correlation need to be checked.

MATERIALS AND METHODS:

The data for this survey was collected from 19 female patients local examination sheets recorded at a private clinic during 2013 to 2018. Demographic data and data assessing oral health will be collected from each subject in single appointment. Local examination of the ulcers was done by single investigator. Locations of oral ulcers were noted down in data sheet along with other soft tissue findings. Size of the ulcer was measured in mm by vernier calipers. All measurements were taken by single examiner. Ulcers were classified according to severity according to their size, borders & associated pain. Size of the ulcer & Hb values were evaluated by paired t test for any correlation. All data was tabulated to draw conclusion.

RESULTS:

Table: Shows size of the ulcer

Ulcer	Mean	N	Std. Deviation	Std. Error Mean
size (mm)	7	19	1.2	0.21292

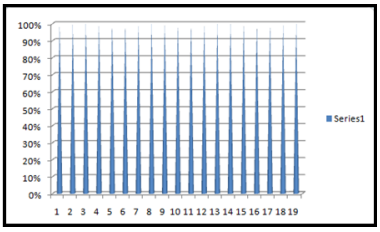

Figure: Shows the size of the ulcer

Here we can seen that mean, Standard deviation (SD), Standard Error of Mean (SEM) of size of the ulcer. Mean was 7 mm with SD was 1.2 and SEM was 0.21292.

Table: Shows Correlation between size & Hb values

	N	Correlation	Sig.	Inference
Mucosal ulcer size & Hb	19	0.412	0.006	Significant

In above table we can conclude that on correlation coefficient r = 0.412 and p- value = 0.006. It seems there is an significant association between size & Hb value.

Hypothesis:

H0: No significant difference between size of ulcer & Low Hb value at 95% Level of Significance.

H1: Significant difference between size of ulcer & Low Hb value at 95% Level Of Significance.

DISCUSSION:

Mucositis alonf with classical pseudomembrane in oropharynx is considered clinical feature of iron deficiency. This study was done to correlate size of oral ulcer with that of low Hb values. Low hemoglobin values are responsible for deranged oxygen saturation at local site which in turn may be a causative factor for deranged healing leading to widespread ulcer.

Predominant site for oral ulcers according to this study was right buccal mucosa, this can be attributed to predominant side of mastication as proved by various studies. More mastication can be attributed to more attrition which can lead to traumatic cusps.

Size of the ulcer was evaluated as mean of 7 mm ranging from 4 mm to 12 mm. The size of the ulcer denotes the host defense & status of lesion limiting local factors. Local limiting factors comprising of ulcer limitation are efficiency of phagocytes & leukocyte concentration at the lesion. Systemic disturbances such as diabetes mellitus can lead to slower local reaction leading to ulcers of large size.

Pain associated with ulcers is attributed to open nerve endings at the base of the lesion. Any stimulus such as hot food or touch can elicit stimulation of these nerve endings & in turn elicit pain. Severity of pain was found to be in direct association to that of size of ulcer.

REFERENCES:

1. Barrios TJ, Aria AA, Brahney C. Cancrum oris in an HIV-positive patient. J Oral Maxillofac Surg 1995; 53:851-855.
2. Imbery TA, Edwards PA. Necrotizing sialometaplasia. Literature review and case reports. J Am Dent Assoc 1996; 127:1087-1092.
3. Sciubba JJ Autoimmune aspects of pemphigus vulgaris and mucosal pemphigoid. Adv Dent Res 1996; 10:52-56.