SOUTHERN BRAZILIAN JOURNAL OF CHEMISTRY 2021 VIRTUAL CONFERENCE

EVALUATION OF THE EFFECTIVENESS OF TREATMENT OF THE ORAL MUCOSA WITH PHYTO-OINTMENT BASED ON PHYTOECDYSTEROIDS

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Received 06 October 2021; received in revised form 15 December 2021; accepted 18 January 2022

ABSTRACT

An indicator of the health of the human body in the state of the oral mucosa. Mechanical and chemical factors constantly influence it. At the first stage of the study, a comparative analysis of the frequency of various forms of traumatic injuries of the oral mucosa was carried out. The distribution of patients into groups was also carried out, depending on the medicinal product used. Then clinical examinations were carried out. After that, the therapy of traumatic erosive and ulcerative lesions of the oral mucosa began. The developed method for treating traumatic lesions of the oral mucosa with medicine based on phytoecdysteroids provides for the elimination of the traumatic factor, applying ointment based on phytoecdysteroids to the dried out focus twice a day. The use of phyto-ointment leads to complete repair of traumatic erosive and ulcerative lesions of the oral mucosa on average by the eighth day from the start of treatment; a similar effect with the use of "Solcoseryl dental adhesive paste" is achieved by the tenth day, and the gel "Cholisal Dental" - at a later date, which is confirmed in this study. The most significant positive effect on the level of quality of life associated with the effectiveness of treatment of traumatic erosive and ulcerative lesions of the oral mucosa in comparison with the dental "Solcoseryl dental adhesive paste" and the gel "Cholisal Dental" is exerted by phyto-ointment, where a decrease in the total points was recorded. When conducting routine examinations of patients, it is necessary to pay attention to the oral mucosa damage. Moreover, in treating traumatic injuries of the oral mucosa, it is recommended to use phyto-ointment, which contains phytoecdysteroids.

Keywords: *oral mucosa, phytoecdysteroids, erosive and ulcerative lesions, trauma to the oral mucosa.*

1. INTRODUCTION

The condition of the oral mucosa is an indicator of the health of the human body. This is because the mucous membrane of the mouth is often constantly exposed to various influences beyond physiological parameters (Utyuzh *et al.*, 2020).

The mucous membrane of the mouth is continuously exposed to various stimuli. Therefore, factors such as mechanical and chemical affect the mucous membrane even when eating. However, due to the enormous strength of immunity: local and general, these factors do not exert much harm since the mucous membrane has good regenerative and protective properties (Ajayi *et al.*, 2019, Bokov *et al.*, 2020).

In connection with the above, the search for a new modern method of treating traumatic erosive and ulcerative mucous membrane lesions is an important area of therapeutic dentistry and orthodontics.

This study aims to increase the effectiveness of the treatment of erosive and ulcerative lesions of the oral mucosa.

2. MATERIALS AND METHODS

The study involved 110 patients with erosive and ulcerative lesions of the oral mucosa. The local ethics committee (protocol № 05-16) approved the study of Sechenov University. All patients signed voluntary informed consent for the study before the study. The distribution of patients

into groups was carried out depending on the type of drug used (Table 1).

Table 1. Principle of group formation in the study

No of group	Medicine name	Number of observations
1	Phyto-ointment	38
2	"Cholisal Dental"	35
3	"Solcoseryl dental adhesive paste"	37

After a clinical examination, photographing the lesion, and cytological examination, therapy of traumatic erosive and ulcerative lesions of the oral mucosa were carried out.

For treatment, phyto-ointment with phytoecdysteroids (group 1), gel "Cholisal Dental" (Jelfa SA, Poland) with a predominant analgesic effect (group 2), and dental paste "Solcoseryl dental adhesive paste", (Legacy Pharmaceuticals Switzerland, GmbH), mainly with an effect that stimulates regeneration (group 3).

Phyto-ointment was developed jointly by the teams of the Department of Pharmacognosy with the course of botany at the Ryazan State Medical University and the Department of Propedeutics of Dental Diseases of the Sechenov University. The developed phytopreparation has the following composition: 40% alcohol (1: 5) tincture of resinous herbs and rhizomes with roots of leuzea, marigold flowers (calendula), meadowsweet herb taken in mass parts (3: 1: 1) respectively - 30 ml; petrolatum, anhydrous lanolin taken in parts by weight (3: 2) respectively - 68.0 g; essential clove oil - 1.0 g; eucalyptus essential oil - 1.0 g.

"Cholisal Dental" - a medicine for treating ulcerative necrotic and trophic lesions of the oral mucosa. It has a pronounced anti-inflammatory and analgesic effect at the site of application.

"Solcoseryl dental adhesive paste" represents such drugs that stimulate regeneration and have a cytoprotective, membrane-stabilizing, wound-healing effect. However, Solcoseryl dental adhesive paste may cause partial taste changes and swelling in the application area.

After the elimination of the traumatic factor, local application of these medicines was carried out. First, the erosive and ulcerative areas were dried with a cotton swab, on which the medicinal preparation was applied 2 times a day until the complete epithelialization of the traumatic injury.

The distribution of acute and chronic traumatic injuries by observation groups is presented in Table 2.

Table 2. Distribution of the frequency of acute and chronic erosive and ulcerative lesions of the oral mucosa by observation groups

No of group	Medicine name	Number of observations	
		Acute	Chronic
1	Phyto-ointment	34	4
2	"Cholisal Dental"	33	2
3	"Solcoseryl dental adhesive paste"	34	3
TOTAL		101	9

Control examinations of patients were carried out at least once every 2-3 days. Cases with severe pain symptoms were observed daily. The treatment was discontinued when complete healing of traumatic erosive and ulcerative lesions of the oral mucosa was established, that is, on the 8-10th day.

All patients were surveyed using a special questionnaire, "Oral Health Impact Profile" (OHIP-14), before and after traumatic injury treatment. The questioning was used to determine the level of quality of life before and after treatment (Sevbitov *et al.*, 2020).

The obtained results were processed in the IBMSPSS program, version 21.0.

3. RESULTS AND DISCUSSION:

The degree of edema and hyperemia of the wound surface in patients decreased with time at different rates, depending on the applied therapeutic agent.

The intensity of hyperemia evidenced the disappearance of signs. For example, in group 1 - by the 6th day of observation, group 2 - by the 10th day, and group 3 - by the 8th day. The final disappearance of edema signs in group 1 was on the 8th day of observation and in 2 and 3 - on day 10.

Simultaneously, the statistical significance

($p \leq 0.05$) of the difference between similar average intensity indicators in groups 2 and 3 relatives to the corresponding values in group 1 was recorded starting from the fourth day of observation and further.

The highest rates of decrease in the average point indicators of the intensity of hyperemia and edema were noted in group 1, the lowest - in group 2. Intermediate values of the corresponding indicators were recorded in group 3.

Thus, the three considered medications, signs of hyperemia, and edema in the zone of erosive-ulcerative traumatic lesions of the oral mucosa are most effective and quickly eliminate ointment with phytoecdysteroids.

Compared to the initial data, the most pronounced indicators of the quality of life associated with dental health following the treatment results were stated in the scale "Problems in eating".

Similar but slightly less pronounced changes were recorded following the treatment results in the "Problems of everyday life" scale.

The sum of average points on this scale in group 1 before treatment was 18.0 points, in group 2 - 18.2, and in group 3 - 17.6. However, as a result of treatment, the corresponding indicators in group 1 were determined at the level of 10.4 points, in group 2 - 14.3, and group 3 - 12.8. Thus, as a result, the sum of the average points characterizing the scale "Problems of everyday life" at the end of treatment decreased.

Changes in the indicators of the quality of life associated with dental health determined by the treatment results in the scale "Communication problems" are recorded in the minimum range. The initial sum of mean points on this scale in group 1 before treatment was 4.7 points and in group 2 and 3 - 4.8. However, at the end of treatment, the corresponding indicators in group 1 were determined at the level of 4.3 points, in group 2 - 4.7, and in group 3 - 4.4. Thus, the sum of the mean points characterizing the scale "Communication problems" at the end of treatment decreased compared to the initial indicator.

4. CONCLUSIONS:

It was concluded that the healing time of erosive and ulcerative lesions of the oral mucosa is faster when using phyto-ointment based on

phytoecdysteroids than when using "Cholisal Dental" and "Solcoseryl dental adhesive paste" ($p < 0.05$)

An insignificant dependence of changes in the quality of life indicators in relation to treatment methods and outcome, traumatic erosive and ulcerative lesions of the oral mucosa were established.

Changes in the quality of life indicators associated with dental health, determined by the treatment results, in comparison and the initial values were found most pronounced in group 1, where a decrease in the total score from 35.6 to 20.2 (by 43, 3%).

5. REFERENCES:

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