INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563 2024: 7,805
eISSN :2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 11, issue 12 (2024)

CLINICAL AND MICROBIOLOGICAL INTERRELATIONSHIP BETWEEN APHTHOUS STOMATITIS AND ORAL DYSBIOSIS IN PREGNANT WOMEN

Shukurova U.A., Azizova Sh.Sh., Mirzaev Kh.Sh.

Tashkent State Dental Institute. Uzbekistan

Abstract: Objectification of clinical and microbiological research data with a point assessment of each indicator allowed to present qualitative and quantitative characteristics of symptoms and indicators in easily formalized point assessments, the use of which allowed to conduct a correlation analysis of clinical indicators of the severity of the course of aphthous stomatitis and microbiological indicators of the state of dysbacteriosis of the oral cavity and intestines.

Keywords: aphthous stomatitis, dysbacteriosis, pregnant women, oral cavity, intestines.

Relevance of the study. Dysbiotic disorders play a significant role in the pathogenesis of chronic recurrent forms of diseases of the oral mucosa. Suppression of normal microflora against the background of an increase in the proportion of opportunistic and pathogenic microflora is one of the reasons for the increase in the frequency and duration of relapses of the disease [1,5]. At the same time, some authors [5,7] associate the microecology of the upper gastrointestinal tract, namely the oral cavity, with the nature and degree of inflammatory-destructive lesions of the mucosa; others substantiate the clinical, microbiological and immunological parallels of recurrent aphthous stomatitis and dysbiotic disorders of the intestine [1].

It is obvious that the occurrence of microecological disturbances in one of the sections of the digestive tract is a source of pathological contamination for other sections. The features of the oral cavity biotope, the constant risk of pathogenic contamination, the high probability of the presence of foci of chronic infection determine its significance for the system of colonial resistance as a whole [3].

The conducted studies show a significant participation in the development of the main dental diseases in pregnant women of local factors of the oral cavity [9]. It is obvious that the problem of the microecology of the oral cavity and its relationship with intestinal contamination in aphthous stomatitis in pregnant women is especially relevant.

The aim of the present research was to study the correlation relationships between the severity of the clinical course of aphthous stomatitis and the degree of dysbacteriosis of the oral cavity and intestines in pregnant women.

Materials and methods of the study. To assess the severity of clinical manifestations of aphthous stomatitis, we used our developed clinical assessment of the severity of the disease with an assessment of individual symptoms and clinical manifestations in points.

1. General condition: 0-not suffering; 1-slight malaise, ability to work preserved; 2-malaise, able to perform light work; 3-feels ill, ability to work is impaired. 2. Body temperature: 0-up to 36.6 C°; 1- 37.1 – 37.2 C°; 2- 37.3 – 37.7 C°; 3-more than 37.8 C°. 3. Regional lymphadenitis: 0 - lymph nodes are not enlarged; 1 - lymph nodes are slightly enlarged, somewhat painful when pressed, mobile; 2 - lymph nodes are enlarged and painful when pressed; 3 - lymph nodes are significantly enlarged, painful. 4. Size of aphthae: 0 - no aphtha; 1 - aphtha up to 0.3 cm² in size; 2 – aphtha 0.4-0.5 cm² in size; 3 – aphtha more than 0.5 cm² in size. 5. Number of aphthae: 0 – no aphthae; 1 – 1-2 aphthae; 2 – 3-5 aphthae; 3 – more than 5 aphthae. 6. Painfulness of aphthae: 0 – absent; 1 – when eating spicy and hard food; 2 – when eating regular food; 3 – does not eat due to

severe pain. 7. Condition of aphthae edges: 0 – edge does not protrude above the mucosa; 1 – border of the element is hyperemic, sharply defined; 2 – element is slightly raised above the mucosa, surrounded by a thin hyperemic rim; 3 – aphtha protrudes above surrounding tissues, surrounded by a sharply defined, brightly hyperemic rim; 8. Condition of aphthae bottom: 0 – congestive hyperemia at the site of the aphtha; 1 – hyperemia; 2 – erosion is covered with a grayish-white, densely seated plaque; 3 – clear infiltration, necrotic masses form a powerful grayish-white, round or oval-shaped layer, often having a villous surface.

The patient's condition was assessed using the general severity index (GSI), calculated from the selected parameters:

GSI= $\sum$ **/ n**, where $\sum$ is the sum of the points;

n is the number of studied indicators.

General assessment of the severity of aphthous stomatitis according to the general severity index:

GSI value = 0.5 – 1.0 – mild;

GSI value = 1.1 – 2.0 – moderate;

GSI value = 2.1 – 3.0 – severe.

The systematization of dysbacteriosis was carried out according to the following scheme: 0 points - normal microflora; 1 point - dysbiotic shift; 2 points - dysbacteriosis of I-II degree; 3 points - dysbacteriosis of III degree; 4 points - dysbacteriosis of IV degree. Each type of pathology was characterized by specific changes in the composition of the microflora of the oral cavity and intestines [1,5,7].

The material for the analysis and conclusions were the results of a study of 30 pregnant women with aphthous stomatitis of varying severity: 10 pregnant women with mild aphthous stomatitis; 10 with moderate aphthous stomatitis and 10 with severe aphthous stomatitis. The control group consisted of 10 pregnant women with intact mucous membranes.

Results and discussion. Clinical manifestations of aphthous stomatitis were varied: patients with mild aphthous stomatitis had single aphthae on the mucosa, pain when eating spicy food, mild malaise, slightly enlarged and slightly painful lymph nodes, GSI fluctuated within 0.7 - 0.9 points; patients with moderate aphthous stomatitis had 3 - 5 aphthae on the mucosa, covered with a tightly seated grayish-white coating, slightly raised above the mucosa and surrounded by a thin hyperemic rim, body temperature up to 37.7 ° C, pain when eating regular food, enlarged and painful lymph nodes when pressed, GSI within 1.3 - 1.7 points; at the same time, patients with severe aphthous stomatitis felt ill, refused to eat due to severe pain, they had significantly enlarged and painful lymph nodes, more than 5 aphthae protruded above the surrounding tissues, surrounded by a sharply limited, brightly hyperemic rim, covered with a necrotic coating of a grayish-white color, GSI within 2.3 - 2.7 points.

All patients with aphthous stomatitis had various manifestations of intestinal and oral dysbacteriosis. The results of the study showed that the frequency of occurrence of dysbacteriosis of varying degrees depended on the severity of the course of aphthous stomatitis. Thus, the frequency of occurrence of dysbacteriosis of I-II degree reached a maximum in patients with mild aphthous stomatitis (50.0% - 58.9%), on the contrary, dysbacteriosis of III degree was more often detected in patients with moderate aphthous stomatitis (53.3% - 72.3%), and severe aphthous

stomatitis corresponded to the maximum frequency of occurrence of dysbacteriosis of IV degree (55,5% – 87,3%).

Objectification of clinical and microbiological research data with a point assessment of each indicator allowed us to present qualitative and quantitative characteristics of symptoms and indicators in easily formalized point assessments, the use of which allowed us to conduct a correlation analysis of clinical indicators of the severity of aphthous stomatitis and microbiological indicators of the state of dysbacteriosis of the oral cavity and intestines (Table 1).

Table 1.

Correlation relationships between the severity of the clinical course of aphthous stomatitis (GSI) and the degree of dysbacteriosis of the oral cavity and intestines (in points).

Diagnosis	Oral dysbacteriosis	Intestinal dysbacteriosis
Intact mucosa n = 10	0,10	0,15
Mild aphthous stomatitis n = 10	0,41	0,62
Moderate aphthous stomatitis n = 10	0,63	0,81
Severe aphthous stomatitis n = 10	0,71	0,92

Indicators of bacteriological studies characterizing the nature and degree of disturbances in the normal microflora of the oral cavity and intestines correlated with clinical manifestations and severity of aphthous stomatitis in pregnant women.

As can be seen from Table 1, a direct and close correlation between the severity of aphthous stomatitis and the degree of dysbacteriosis was established. At the same time, with an increase in the severity of clinical manifestations of aphthous stomatitis, the correlation relationships increased. Thus, in a patient with an intact mucosa, there were no correlation relationships ($r < 0.00$); with mild aphthous stomatitis, the r values were equal to 0.4 - 0.62; and with an average 0.63 - 0.81 and severe aphthous stomatitis, they fluctuated within the range of 0.71 - 0.92, respectively.

As can be seen from Table 1, with aphthous stomatitis of all severity levels, the levels of correlation relationships are higher with intestinal dysbacteriosis.

The results obtained are consistent with the literature data on the leading role of intestinal microflora as a factor of non-specific resistance, which is realized not only due to intestinal antagonism but also non-specific activation of phagocytic and cytostatic activation of macrophages, stimulation of lymphoid tissue, and effects on immune complement T and B cells [2,6,9].

Clinicians are faced with the task of selecting a set of treatment measures for a particular clinical situation, the nature of the underlying disease, its phase and severity, and the presence of

concomitant background pathology. Obviously, the set of treatment measures for aphthous stomatitis in pregnant women must include drugs that restore the disturbance of the microbiocenosis not only of the oral cavity, but also of the intestines.

Conclusion. A pathogenetic relationship between disturbances in the microecological balance of the oral cavity and intestines in the development and progression of aphthous stomatitis in pregnant women has been established. The data obtained dictate the need to use correctors of dysbiotic changes in the oral mucosa and intestines in the treatment of aphthous stomatitis.

Taking into account the critical condition of the pregnant woman's body, a contraindication to the use of most immunocorrectors, drugs for normalizing the microbiocenosis can be probiotics, which have virtually no side effects even with their long-term administration to patients with gastrointestinal dysfunction.

LIST OF REFERENCES

1. Гализина О. А. Основные аспекты возникновения, клинических проявлений, лечения и профилактики хронического рецидивирующего афтозного стоматита //Российский стоматологический журнал. – 2014. – №. 6. – С. 39-42.

2. Ибрагимова М., Набиева М. Гигиеническое состояние полости рта у беременных с хроническим рецидивирующим афтозным стоматитом //Актуальные вопросы хирургической стоматологии и дентальной имплантологии. – 2022. – Т. 1. – №. 1. – С. 33-34.

3. Наврузова, У. О. (2024). ОСОБЕННОСТИ ТЕЧЕНИЯ ХРОНИЧЕСКОГО РЕЦИДИВИРУЮЩЕГО АФТОЗНОГО СТОМАТИТА У ЖЕНЩИН ФЕРТИЛЬНОГО ВОЗРАСТА. *TADQIQOTLAR. UZ*, *38*(1), 105-107.

4. Успенская О.А. Этиопатогенетическое обоснование терапии хронического рецидивирующего афтозного стоматита на фоне урогенитальной инфекции : дис. – 2015.

5. Успенская О. А., Казарина Л. Н., Шевченко Е. А. Рецидивирующий афтозный стоматит, ассоциированный с урогенитальной инфекцией. – федеральное государственное бюджетное образовательное учреждение высшего образования" Нижегородская государственная медицинская академия" Министерства здравоохранения Российской Федерации, 2018.

6. Шукурова, У. А., Камилова, С. Р., Кобилжонова, М. У., Гаффарова, С. С., & Юсупалиходжаева, С. Х. (2022). АФТА СЕТТОНА СЛИЗИСТОЙ ОБОЛОЧКИ ПОЛОСТИ РТА (ОБЗОР). *Scientific Impulse*, *1*(5), 1528-1538.

7. Шукурова, У., Наврузова, Ф., & Тошпулатов, Б. (2022). Эффективность комплексного лечения хронического рецидивирующего афтозного стоматита у беременных. *Актуальные проблемы стоматологии и челюстно-лицевой хирургии 5*, (1), 822-825.

8. Galizina, O. A. (2014). The main aspects of onset, clinical signs, treatment and prevention of chronic recurrent aphthous stomatitis. *Russian Journal of Dentistry*, *18*(6), 39-42.