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Forthcoming Meeting

16th Congress of the Balkan Stomatological Society 28 April - 1 May, 2011, Bucharest, Romania

BALKAN STOMATOLOGICAL SOCIETY
&
ROMANIAN DELEGATION OF THE BaSS

Invite you cordially to Bucharest on the occasion of the
16th Congress of the Balkan Stomatological Society

President of the Congress

Prof. Norina Forna

Dear colleagues and friends,

*On behalf of the Local Organizing Committee, it gives me great pleasure to invite you for the 16th Balkan Stomatological Society Congress (BaSS) to be held in Bucharest, Romania, in April 2011. This event will be organized by the Romania delegation of the BaSS with the support of the **Romanian Society of Oral Rehabilitation (ASSRO)**, **The Romania Dental Council (CMDR)** and **Romanian Association of Oral Implantology and Biomaterials (SRIOB)**, under the theme “**Update in dental medicine**”.*

The success of the Annual Bass Congress underlines the crucial role of the scientific programme’s quality. In recent years we have not only seen an increase in the number of participants but also the growth and development of what is now an outstanding scientific programme with continuing efforts to elevate Balkan stomatology to a higher level. This certainly could not have been achieved without your valuable support at the BASS congresses and for that we are extremely grateful.

As the Local Organizing Committee, we hope that, in addition to intellectual and professional growth, we can also provide you with a relaxing and enjoyable social experience. The capital of Romania is an attractive tourist destination, which offers the opportunity to all of you to pay a visit to the numerous historical sites and enjoy the extraordinary Romanian scenery.

We look forward to seeing you all in Bucharest.

Kind regards

Professor Norina Forna
President of the Congress

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Oral Findings in Anaemias

SUMMARY

With intention to contribute to clinical findings at children with haematology disorders, we formed the aim of our project - to notice the oral signs and symptoms at patients diagnosed with anaemia and acute leucosis, depending of disease's duration, in order to realize similarities and differences between them.

40 children at age of 1-12 year, hospitalized at the Paediatric Clinic, Department of Haematology and Oncology, were examined. Anaemia was diagnosed in 15, and acute leucosis in 25 patients. Clinical examination consisted of inspection and palpation. Subjective parameters (pain, burning, indefinite taste, xerostomia) and objective signs (oral mucosa colour, bleeding, mucosal and lip changes and loss of tongue papillae) were evidenced in all patients.

The results showed that patients with anaemia (the disease was diagnosed at least 15 days previously) had exceptionally pale oral mucosa, evident loss of tongue papillae, angular cheillitis, glossodynia and glossopirosis. If the duration of the disease was at least 2 years, glossodynia and glossopirosis were discreet and weakly expressed, and cheillitis sicca was objectively present. Subjects with acute leucosis had comparatively much more prominent signs: burning pain and swelling were evident and strong, mouth opening limited, and there was a diffuse erythema throughout the oral cavity (the oral cavity was coloured red). Gingivitis with spontaneous bleeding, cheillitis exfoliativa exudativa and pale face were also present regardless time when the disease was diagnosed.

It was concluded that differences in oral clinical signs were due to bone marrow insufficiency in patients with leucosis, which influences all blood cells, and is manifested by disruption local immunity, in comparison with primary hypo-oxygenation present in patients with anaemias.

Keywords: Blood Disorders; Anaemia; Leucosis; Bleeding, oral

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Introduction

Almost all haematological disorders can cause different kinds of changes in the oral cavity. Anaemias are the most common among haematological disorders. Lesions in the oral cavity can be noticed soon after signs of anaemia are noticed and the disease diagnosed, at the same time when disease is diagnosed. However, oral lesions could be the primary clinical manifestation of the disorder. Accordingly, it can be said that the role of dentists might be very important concerning diagnostic, prognostic and therapeutic issues.

Anaemia is a clinical condition characterized by acquired or hereditary abnormality of erythrocytes, their precursors or theirs' structural elements³. However, sometimes it could be a consequence or manifestation of other, non-haematological disorders in the organism. In general, anaemia could be defined as quantitative deficit of erythrocytes, and due to this deficit, the oxygenic capacity of the blood is diminished. The basic elements for diagnosis of anaemia are reduction of the haematocrit, haemoglobin or hem. The enormous number of different kinds of anaemias can be classified into 3 groups:

microcyt, normocyt and macrocyt anaemias, with different clinical entities^{1,4,10}.

According to the statistic data from different sources, it could be concluded that the most frequent from all anaemias is fero-deficit anaemia (according to the WHO data¹³, 2.3% of children between 9-11 years of age, and 5.7% of children between 2-4 years of age, have fero-deficit anaemia).

The aim of this investigation was to notice oral signs and symptoms in patients diagnosed to have anaemia depending on the moment of diagnosing the disease (within 15 days, 3 months and six months).

Material and Method

45 children 1-12 years of age, hospitalized at the Paediatric clinic, Department of Haematology and Oncology, and examined at the Department of Oral Pathology and Periodontology were included into the study.

Depending on the disease duration, all the observed patients were divided in 3 groups:

- First group - patients with anaemia diagnosed within 15 days;
- Second group - patients with anaemia diagnosed within 3 months;
- Third group - patients with anaemia diagnosed within 6 months.

Before the oral clinical examination, medical and dental histories were evaluated. We faced a problem of precise communication with children due to their average age, so it was difficult to interpret the subjective parameters correctly. Of course, some of our patients didn't talk at all, and we could not receive any information concerning their subjective difficulties. In these cases we used information from their parents.

In all of our patients, oral clinical examination was performed. To notice the existence of some oral changes, all subjective symptoms and objective signs were noticed. Concerning dental history, special attention was directed to probable genetics anamnesis, existence of bad habits, socio-economical conditions, etc. Subjective parameters as pain, burning, indefinite taste, or xerostomia were evidenced at every single subject.

Oral clinical examination was performed by inspection and palpation. Parameters like oral mucosa colour, mucosa bleeding, oral mucosa and lips changes and loss of the tongue papillae or their hypertrophy, the existence of erosions or ulcers were noticed and compared with subjective symptoms.

Data are processed and presented in tables and graphics.

Results

Figure 1 points out the percentage of different kinds of anaemias in the examined children. It can be noticed that the most common type of anaemia was fero-deficit type (39%); pernicious anaemia and anaemias associated with some chronic disorder were present in 27% of cases. In small percent of patients a combination of fero-deficit and pernicious anaemia was noticed.

The results point out the existence of pale oral mucosa, evident loss of tongue papillae, angular cheillitis, glossodynia and glossopirosis in patients with anaemia diagnosed within 15 days prior to the examination. Glossopirosis was frequently common in subjects with anaemia diagnosed within 3 months prior to the examination, but it was generally moderate in comparison to patients from the first group. In patients from the third group, where anaemia was diagnosed within 6 months prior to the examination, oral symptoms were very light, some glossodynia and glossopirosis and discrete increasing of saliva production (Tab. 1).

It is evident from table 2 that in patients with anaemia, in the beginning of the disease, all clinical symptoms were moderate (change of oral mucosa colour, loss of tongue papillae and cheillitis angularis). These symptoms calmed with the evolution of the disorder and were discretely present later. Eritema, petechiae, echymosis or gingival bleeding (caused by gingival inflammation) were not noticed in any period of the disease in none of the examined subjects.

Figure 2 depicts the fact that subjective symptoms calmed proportionally with the duration of the disorder.

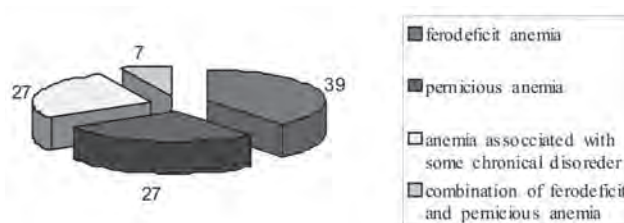


Figure 1. Percentage of different kinds of anaemia in the examined children

Table 1. Subjective symptoms in the oral cavity according to the duration of anaemia

Subjective symptoms	Duration of anaemia		
	Within 15 days	Within 3 m.	Within 6 m.
Oral pain	+++		
Glossodynia and glossopirosis	+++	++	+
Undefined taste	+	+	
Hypersalivation			+
Spontaneous bleedings			

Table 2. Oral objective signs according to the duration of anaemia

Objective signs	Duration of anaemia		
	Within 15 days	Within 3 months	Within 6 months
Pale mucosa	++	+	
Loss of tongue papillae	++	+	+
Angular cheilitis	++	+	+
Cheilitis sicca	+	+	+
Eritema			
Petechiae and echimoses gingivitis			
Gingival bleedings			

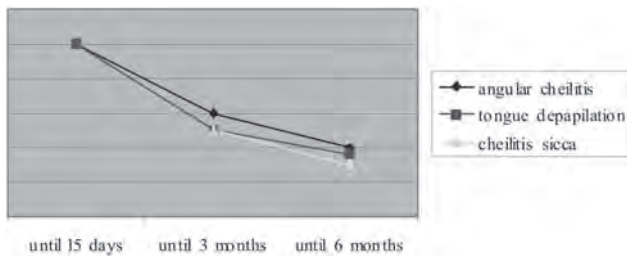


Figure 2. Appearance of oral objective signs in patients with anaemia during the disease

Discussion

Anaemias are more common diseases in children. Generally, anaemias have benign nature, but in children population can cause serious difficulties due to many subjective and objective problems in different stages of evolution of the disease. Clinical manifestations of the disease vary depending on age, extent, severity, prior existence of other systemic disorders and other factors. Slight and moderate controlled anaemias are mainly asymptomatic⁴. Symptom of main importance is paleness of oral mucosa, which is important in diagnostic and prognostic view.

In this context Siljanovski¹⁰ notices that anaemic patients, regardless of the type of anaemia, beside general symptoms characteristic for the disease, have oral changes too. According to this author, the most common (30-45%) are tongue changes, such as atrophic glossitis, as well as angular stomatitis and Candidiasis. The presence of these oral symptoms Siljanovski has commonly noticed with general symptoms like fatigue, fainting, paraesthesias and other. In patient with aplastic anaemia, presence of gingival hyperplasia is noticed, especially in patients aged 5-7 years. In clinical presentation of this type of anaemia, a catharal gingivitis with moderate bleeding is noticed, but mainly related to some underlining systemic

disorder like neutropenia or leukaemia⁸. Apart from that, in some patients with anaemia, a specific oral aphthous changes are noticed. Epithelisation of these lesions shorts when patients undergo blood transfusion and better haemoglobin blood level⁹. By some authorities in oral pathology and medicine, petechiae and echimosis together with gingival hyperplasia are the most common in patients with aplastic anaemia². The same authors noticed a presence of spontaneous gingival bleedings and herpetic lesions.

Our research disclosed that in patients with anaemia the most frequent subjective symptoms were glossodinia, indefinite taste and hypersalivation. Thess symptoms are more prominent at the beginning of the disease, and continuously reduce. After 6 months, the most of the symptoms were discrete, although glossodinia still persisted. The most frequent objective symptom in our patient was angular cheilitis. The symptom was noticed in all patients regardless the disorders' duration. Pale mucosa, loss of the tongue papillae and angular chalets were noticed in patients at the beginning of the disorder. Similar findings were noticed by other authors too^{3,10}.

As anaemias are defined as absolute reducing of erythrocytes numbers, reducing of haemoglobin concentration, or reducing of haematocrit, we can speculate that subjective symptoms and objective signs are caused by the reduced oxidative blood ability, reducing of normal transportation of the needing quantity of oxygen from lungs to peripheral blood. All this changes lead to tissue and cell hypo-oxygenation, which is clinically noticed in the oral cavity and other organs.

Different findings in our patients in different stages of the disorder (within 15 days, 3 months, or 6 months) might be explained in similar way: the most prominent symptoms at the beginning of the anaemia, i.e. in the acute stage of the disease, are the consequence of the genuine mechanism of the disease; later on, within 3 and 6 months after the diagnosis had been made, probably as a consequence of the undertaken treatment and normalisation of the disturbed haematological processes, oral symptoms also diminish. Our findings of subjective and objective improving in clinical findings within 6 months support this assumption.

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