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Editorial

Dental Aspects of Thalassemias

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Thalassemias (Mediterranean anemia, Cooley's anemia) is a heterogeneous group of genetic hereditary disorders with varying impairment degrees of hemoglobin synthesis. The most common is β-thalassemia that is classified as heterozygous (thalassemia minor) and homozygous (thalassemia major). The name derives from the Greek word that means sea (Mediterranean) and generally occurs in the Mediterranean countries (Cyprus, Italy and Greece), and can also be found in the countries of the middle and far East [1].

The disease usually occurs in children aged only a few months. The diseased child progresses slowly, has pale yellow skin, mongoloid appearance, enlarged spleen, endocrine system disorders, heart problems, and numerous ulceration of the legs. Weak forms can be diagnosed as anemia caused by iron deficiency.

Patients, their families and health professionals face a range of new social and medical needs. Dental health is an important segment of care that affects the general health and quality of life of these patients [2].

On X-ray images of bones, a number of irregularities such as an increase in the medullary canal, a thin cortex, and generalized osteoporosis can be noticed. The spread of the medullary canal leads to a painless expansion of the bones of the face, which over the years have become augmented, allowing expansive development of the maxillary, i.e. protrusion of the entire middle part of the facial massif [3,4].

Oral mucosa become paler and loss of papillae from the tongue was followed by glossitis and glossopirosis. Sometimes an increase of salivary glands occurs. Because red blood cells contain iron, their destruction results in the accumulation of iron in the body, which can cause unwanted complications of the liver, pancreas, and heart. The medication called Desferioxamin, which binds iron, and prevents its accumulation in the body, if given injecting to a considerable extent, can prolong patient's life. In stronger forms, blood transfusion is necessary.

Orofacial changes in patients with thalassemia

Numerous and intense orofacial manifestations appear in patients with thalassemia. They are mainly due to bone changes due to ineffective erythropoiesis. A big problem is the occurrence of orthodontic malocclusion called maximal protrusion [3,4].

In a study of Hatab., *et al.* [5] involving 54 patients with thalassemia major at age of 5 - 18 years, clinical and radiological features were analyzed. In addition, poor oral hygiene is registered in 60% and gingivitis in 43%. More than half had a frontal anomaly, saddle nose and maxillary protrusion. Dental discoloration and pallor of oral mucosa was present in 44% and 39%. Dental pain was observed in 40% and headache in 29%. In the evaluation of 49 patients with Thalassemia Major, dentitio tarda was noted among most children by Hazza., *et al* [6].

Dental treatment: These patients are at risk for dental treatment under general anesthesia, and when routinely invasive dental treatment, consultation with a doctor and eventual preparation of the patient is necessary.

To ensure safe and effective treatment, before starting a dental treatment with a person with thalassemia, it is necessary for the dentist to have as much information about the disease as possible. The type and treatment of thalassemia, degree of iron loading, systemic complications are important information to plan dental treatment. In all invasive interventions, antibiotic prophylaxis is necessary. Always have to consider liver and coagulation tests. Sedation/anesthesia is an important aspect. It should be carefully planned to reduce intra-post-vascular complications. Interventions should be minimally aggressive and less traumatic for patients [7].

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