

**A.V.Samoilenko,
V.A.Drok**

State institution
“Dnipropetrovsk Medical Academy of the Healthcare Ministry of Ukraine”

Key words: scoliosis, dentoalveolar anomalies, ultrasonic osteography, markers of a metabolism of a bone tissue.

Received: 28.10.2012

Accepted: 18.11.2012

ASSESSMENT OF BONE TISSUE DURING TREATMENT DENTOALVEOLAR ANOMALIES IN CHILDREN WITH SCOLIOSIS

The study was conducted as a part of research work “Development and improvement of the methods for diagnosis and pathogenetic treatment of periodontal diseases, dental caries and its complications”, (state registration 0100U002316).

Summary. The purpose of the study was to develop a rational method of treatment dentoalveolar anomalies aimed at reducing relapses dentoalveolar anomalies, duration of treatment, depending on bone density in patients with scoliosis. Scoliosis is often associated with osteopenia and impaired metabolism of connective tissue that manifested reduced bone mineral density and changes in metabolic status, impaired synthesis of the major structural components of connective tissue, resulting integral reaction to a combination of two abnormal situations - osteopenia and scoliotic deformity. Prevalence dentoalveolar anomalies abnormalities among patients with scoliosis reaches 81.6%, in most cases accompanied by gingivitis. Therefore, the need for orthodontic treatment in these patients is quite high. When scoliosis orthodontic treatment has an impact on pathologically changed bone, so the retention period of orthodontic treatment need prescriptions that enhance the adaptive capacity of the body and promote reparative bone formation and development of pathogenetically substantiated complex preventive measures aimed at improving the effectiveness of treatment and prevention of dentoalveolar anomalies recurrence. A biometric study of control and diagnostic models of the jaws, biochemical oral fluid, determining bone density by ultrasonic osteography, the timing of orthodontic treatment in patients, with jaw abnormalities suffering from scoliosis and various sites of varying severity. We have developed medical centers showed high efficiency, which showed an increase density and improve bone metabolism.

Citation: Samoilenko AV, Drok VA. [Assessment of bone tissue during treatment dentoalveolar anomalies in children with scoliosis]. *Morphologia*. 2012;6(4):76-82. Ukrainian.

© **Samoilenko A.V., Drok V.A., 2012**

References:

Vavilova TP, Pashkova GS, Grinin VM. [A study of soluble osteoclast-activating factor and osteoprotegerin in mixed saliva of patients with periodontitis]. *Rossiyskiy stomatologicheskiy zhurnal*. 2010;(2):11-4. Russian.

Galkina OP, Zhurochko EI. [The features of dentition status at adolescents with scoliosis]. *Sovremennaya stomatologiya*. 2010;(1):79-80. Russian.

Golovanova NYu. [Bone mineral density in children with systemic connective tissue diseases]. *Rossiyskiy pediatricheskiy zhurnal*. 2007;(3):4-10. Russian.

Grudyanov AI, Zorina OA. *Metody diagnostiki vospalitelnykh zabollevaniy parodonta: rukovodstvo dlya vrachev* [Methods of diagnosis of inflammatory periodontal diseases: guide for physicians]. Moscow: 'MIA' Co Ltd; 2009. 112 p. Russian.

Vavilova TP, Shtrunova LN, Shishkin SV, Shishkin VS. [The use of mixed saliva laboratory values for evaluation of periodontal tissue condition]. *Rossiyskiy stomatologicheskiy zhurnal*. 2010;(1):10-3. Russian.

Kazmin AI, Kon II, Belenkiy VE. *Skolioz* [Scoliosis]. Moscow: Meditsina; 1981. 272 p. Russian.

Latyshev OYu. [Representation about a dysplasia of a connecting tissue. Dental disease and change in maxillo-facial area at a dysplasia of a connecting tissue]. *Stomatologiya detskogo vozrasta i profilaktika*. 2006;(1-2):25-7. Russian.

Rudenko MM, Radochkina SV, Oslavskiy OM, et al. [Features of the dentition in school children with disorders of the musculoskeletal system]. *Odeskiy medichniy zhurnal* [Odessa Medical Journal]. 2001;(1):27-30. Ukrainian.

Segal MM. [Prevalence and relationship of teeth deformities with concomitant functional disorders]. *Visnyk stomatologiyi*. 2003;(2):62-4. Ukrainian.

Chaklin VD, Abalmasova YeA. *Skoliozy i kifozy* [Scolioses and kyphoses]. Moscow: Meditsina; 1973. 256 p. Russian.

Shevchenko SD, Yermak TA. [Changes in bone mineral density and biochemical parameters in children with scoliosis]. *Problemy osteologiyi* [Problems of osteology]. 1999;2(2):28-9. Russian.

Shevchenko SD, Yermak TA. [Osteopenia in children with scoliosis]. *Ortopediya, travmatologiya i protezirovaniye* [Orthopaedics, Traumatology and Prosthetics]. 1999;(4):71-4. Russian.