# Dental Medicine Section

## Medical Rehabilitation of Children with Isolated Cleft Palate

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The purpose of this study is to increase the efficacy on rendering a specialized medical aid to children with isolated cleft palate. With a view to organizing, planning and forecasting of therapeutic and preventive care for children with cleft palate in the Republic of Moldova was conducted epidemiological study with the definition of the frequency of this defect and trends of indicators in the period 2005-2009. Their incidence in Moldova was 1, 32:1000 live-borns. The highest incidence was noted in the southern and central regions of the republic. The increase of incidence up to 0,31:1000 live-born in comparation with the period 1987- 2000. The incidence of separate cleft lip (CL) decreased 0,04 and incidence of cleft lip and palate (CLP) increased 0,08 and the incidence of cleft palate (CP) increased 0,17 per 1000 live-born, that rezulted in the change of the ratio between the certain form of lip and palate clefts (CL:CLP:CP) from 1:1,3:1,2 to 1:1,8:2. This means the increase of the abnormality severity. It is noted the predominance of isolated cleft palate. The prerequisite for the full oral rehabilitation and social adaptation of cleft palate patients is a consistent, comprehensive care system, providing a well organised integration of preventive and interceptive measures, as well as close cooperation between the various specialised disciplines. The paper describes in detail the etiology, pathogenesis, and modern methods of prenatal diagnosis, clinical and early rehabilitation of these patients in a specialized centre. In children with isolated cleft palate, palate repair is generally performed before 1 year of age. Early restoration of the anatomical structures of the palate creates the conditions for speech production and integration of the child in society according to age.

## Particularities of the Prosthetic Treatment by Using Modified Dowel - Cores in Case of Small Prostheti

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Particularities of the prosthetic treatment by using modified dowel-cores in case of small prosthetic abutments in side areas The essence of the subject is in using modified dowel-core in order to increase the contact surface with the future prosthetic construction which will reduce the risk of decementation and increase retention of the construction. For herewith subject-matter research was used the comparison method of analysis. The comparison was acted upon the dimensions of contact surfaces with future prosthetic construction in case of using standard dowel-core and the modified dowel-core with occlusal depression proposed and described in this paper. After calculation it was found that using modified dowel-core total surface increased by approximative 25%, and occlusal surface in comparison with the standard one by 95%. The particularity of modified dowel-core is also presented in clinical case. In dental practice a frequently met problem is that the prosthetic treatment becomes difficult or even impossible because of bad retention connected with insufficient height of the abutment. Such situations lead to decementation of the prosthesis as well as cause insufficient

space for ceramic layer. Such complications may be observed in the following cases like: small dental crowns, some vertical dental and dento-alveolar migrations which leads to shifting the occlusal area and tooth lapping by decreasing the height of the crown, in cases of total and subtotal defects of the crown which are followed by migration of antagonists. The proposed method of treatment using modified dowel-cores (with the occlusal depression) can compensate the insufficiency of the surface and height of the abutments by increasing both the retention zone and the contact surface with the future prosthetic construction. In conclusion we underline insufficient dimensions of prosthetic abutments in different clinical situations create difficulties in prosthetic treatment and often compromise prosthetic construction; - the usage of dowel-cores with occlusal depression increase contact surface and retention with future prosthesis; - due to particularities of this modified dowel-core it is possible to increase the space for ceramic layer; - advantages of using the modified dowel-cores prevail its disadvantages, therefore, the herewith proposed method permits to solve the space and surface deficiency accrued in the prosthetic treatment of the special clinical situations as described, without loosening the root support.

## Changes of Peri-Implant Crestal Bone Dependent on Crest Module Positioning with Flapless Surgery

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Analyzing de changes of cortical bone around endosseous implants depending on crest module insertion with flapless surgery. Methodes: 98 relationships of medial and distal sides of 49 submerged two-piece endosseuse implant were studied in vivo on mandible and maxilla after insertion by a non traumatic flapless surgery method between the years 2008-2009. After first and second operational stage panoramic radiographies were made and scanned for computerized analysis with "Corel Draw" program. Resoults: Radiographies showed after first stage that crestal module had 4 different relationships with cortical bone on medial and distal sides of each implant. The medial and distal relationships were as follow: Medial 15.3% at cortical level, 12.24% subcortical 1.0 mm, 10.2% subcortical 1.01 mm and 12.24% above cortical bone. Distal: 14.28% at cortical level, 12 .24% subcortical 1.0 mm, 5.1% subcortical 1.01 mm and 18.36% above cortical bone. After 3 months at mandible and 6 months at maxillae, changes of peri-implant crestal bone showed a significant statistical priority ($p < 0.05$) on distal side with above cortical bone relationship at first stage, with mean bone apposition of 0.173 mm. Medial relationships didn't show any statistical differences. The mean peri-implant changes on medial side were as follow: (-0.257mm) at cortical level, (-0.332mm) sub cortical -1.0 mm, (-0.562) sub cortical 1.01 mm and (+0.232) above cortical bone. The mean peri-implant changes on distal side were as follow: (-0.687mm) at cortical level, (-0.777mm) subcortical 1.0 mm, (-2.198) subcortical 1.01 mm and (+0.173) above cortical bone. Conclusions: as much as implants were inserted towards sub-cortical, bone loss is increasing. Positioning implants within the thickness of de gingiva or above cortical bone, contributes to bone apposition. Different crestal module positioning with flapless surgery does not influence the outcomes of peri-implant bone changes. The probability of positioning crest module above crestal bone with flapless surgery are higher on distal side, while on medial side probability is greater that a cortical level will be achieved.