Introduction. In order to establish an accurate diagnosis and proper therapy planning in orthodontics, it is necessary to perform the analysis of dental records. The only non-invasive three-dimensional record that provides important information in orthodontics is the study cast. The present study was conducted to determine the Linder Harth, Korkhaus and Bolton analyses on dental casts before and after treatment, in two different cases with different approaches to treatment plan.
Aim of the study. The aim of the present study is to determine the contribution of study casts in orthodontic treatment planning.
Material and methods. Dental records of two patients were selected, one case treated with extraction of upper first premolars and with non-extraction therapy in another one. These cases were selected randomly, without malocclusion restriction, from the Chair of Pediatric Oro-maxillo-facial surgery, Pedodontics and Orthodontics, SUMPh *Nicolae Testemitanu*. Two sets of dental casts with permanent dentition were examined in the transverse and sagittal plane. Manual measurements were done with a digital caliper directly on the dental casts, and the obtained values were compared to those defined by the formula.
Results. For the first case (with extraction of upper first premolars) in the pre-treatment stage, for the maxillary arch, Linder Harth analysis showed that in the premolar arch the width is 3,6 mm less than the expected value and in the molar one 3,2mm less. Korkhaus analysis established for the upper arch in the anterior segment a deficiency of 3mm and 5,5mm in the posterior one. The Bolton's anterior ratio was 76% and the overall ratio 88%; this indicates maxillary tooth material excess. For the second case (non-extraction case) in the pretreatment stage, for the maxillary arch, Linder Harth analysis showed that in the premolar arch the width is 1,25mm less than the expected value, but for the molar one with 4,1mm more. Korkhaus analysis established for the upper maxillary, only in the anterior segment (-1,5mm) a relative narrow dental arch, but for the posterior segment the values are within the normal range. The anterior ratio of Bolton is 80%, and indicates mandibular anterior excess.
Conclusions. The data collected and analyzed from these study casts in order to evaluate the differences in pre-treatment and post-treatment stages, established the value and the contribution of study casts in determination of best approach in treatment planning. Orthodontic treatment planning is more than just deciding on extraction or non-extraction case. It requires an individual approach, despite the great importance of biometric standards.
Key words: Linder Harth analysis; Korkhaus analysis; Bolton analysis

301. CONSERVATIVE TREATMENT ASPECTS IN FLUOROSIS AND POST ORTHODONTIC LESIONS

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Introduction. Modern dentistry evolution trends are based on development of new treatment methods that must guarantee hard dental tissue preservation, that can be used for aesthetic and functional reabilitation. Conservative methods ensure a comfortable treatment, without local anesthesia, with a long term perspective of maintaining teeth integrity. These new treatment methods that approach the post orthodontic lesions and fluorosis through the prism of enamel demineralization allow to point on their efficiency and advantages regarding to other methods.
Materials and methods. The study included 15 patients that acused enamel demineralization. Eligibility criteria: mild forms of fluorosis or post orthodontic incipient caries lesions. Patients were divided in 2 groups: group I- 9 patients, group II- 6 patients. The first group was subject for conservative fluorosis treatment, and the second one- conservative treatment for post orthodontic

lesions. Both groups were treated using ICON system. Data were analysed by photostatic examination, before and after treatment.
Results. There was a significant improvement in clinical status, characterized by macula disparition and reduction in brown striations intensity in group one and complete treatment for the second group.
Conclusions. The conservative therapeutic method used in this study offered good results in enamel demineralisation treatment, manifested by caries in macula stage, but additional research are neccessary in case of dental discoloration.
Key words: conservative treatment, fluorosis, incipient caries, ICON

302. THE USE OF "BULK FILL" TECHNIQUE FOR POSTERIOR TEETH RESTORATION

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Introduction. Modern dentistry, by continuous development of biomaterials and treatment techniques, opens up new possibilities of approach for dental affections, aiming to implement the most effective methods of treatment and to achieve revolutionary results in the treatment and prophylaxis of dental caries. The "Bulk fill" technique helps us to achieve a qualitative restoration of posterior teeth in a shorter time than using traditional techniques, due to the simplified process of restoration and last generation materials used.
Aim of study. The analysis of the advantages of „bulk fill" technique, used in posterior teeth restoration.
Materials and methods. A clinical study has been performed on a group of 36 patients, 12 of them female and 24 male, aged 21 to 48 years. Of the total amount of 52 treated teeth, 34 were molars and 18 premolars, 28 were diagnosed with chronic medium caries and 24 with chronic deep caries. Treatment protocol: clinical and radiological examination, loco-regional anesthesia, operating field isolation using rubber dam, preparation of dental caries and treatment of the dentinal wound, dental cavities filling, using „bulk fill" technique and materials, finishing and polishing of the restorations, radiological examination.
Results. The filling of the dental caries using the"bulk fill" technique allows the material stratification up to 5mm, incomparison with the classical technique of 2mm limit, avoiding multiple stratifications and reducing the working time by near 25%. The reduced contraction (3.6%) and the very low (1.5 Mpa) polymerization stress reduce the possibility of postoperative sensitivity.
Conclusions. The results of the study proved the superiority of the "bulk fill" technique in the posterior teeth restorationdue to the simplified filling procedures, the good adaptation of the material to the formed cavity and the reduced time spent on the restoration process.
Key words: dental caries, bulk fill, stratification

303. MANAGEMENT OF TEMPOROMANDIBULAR DYSFUNCTIONS USING OCCLUSAL SPLINTS

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