

arch and occlusion. The exact position of the implant in the bone with respect to location and angulation is often difficult to accurately achieve.

**Aim of the study.** Evaluation of the most commonly used surgical guides for backward planning.

**Materials and methods..** Five patients, 3 men and 2 women (aged between 30 and 50 years old), have been included in the research. Two cases out of 5 were with frontal single tooth edentation, 1 patient had Kennedy Class II partial edentation, 1 patient with Kennedy Class I edentation and 1 patient with complete edentulism. Ten implants of 2 stages were inserted with partially guided surgery (static guided surgery). One-demand software was used for CBCT analysis and for planning. The Blue Sky Plan and 3Shape softwares were used for surgical guide fabrication. As for the initial planning in 4 cases wax up had been made and scanned, in 1 case for CBCT patient's old prosthesis had been contrasted. Different surgical guides have been used: 3 of them were tooth-supported, 1 was tooth and tissue supported and 1 was solely tissue supported without the usage of support pins. The deviation degree was analyzed after the implantation by merging the CBCT with the initial planning.

**Results.** In this study, 1 surgical guide was fractured, another surgical had positioning difficulties which required adjustment. Other guides fitted with no adjustments. After the radiological evaluation it was found a favorable/good angulation and position which was almost alike with the one planned initially.

**Conclusions.** It can be concluded that the surgical guides will continue to be a valuable adjunct to achieve precision in today's prosthetic driven implantology. Backward planning allows for a precise and predictable implant placement that improves the communication between prosthodontist and surgeon with the achievement of a better result of the treatment.

**Key words:** implant, surgical guides, prosthetically driven implantology.

### **384. COMPARATIVE EVALUATION OF GOLDEN DENTAL PROPORTION AND RECURRING ESTHETIC DENTAL PROPORTION (RED)**

Author: **Mihai Semeniuc**

Scientific adviser: Oineagră Vasile, MD, PhD, Associate professor, *Ilarion Postolachi* Department of Prosthodontics, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

**Introduction.** In order to understand the aesthetics in the dental practice and to determine some objective and universal proportions, which describe the size of the teeth, various studies have been conducted. The width ratio of the maxillary teeth is an important factor in dental and facial esthetics. It reveals objective data which is necessary in restorative treatment planning. The Golden proportion (1/1.618 or 62%) and the recurring esthetic dental proportion (RED) are two different theories that have been suggested to rehabilitate an optimal smile. Red proportion allows using individual proportion in different cases, as long as it remains consistent, proceeding distally in the arch.

**Aim of the study.** The aim of this study was to evaluate and compare the Golden and RED proportions in physiologic permanent dentition.

**Materials and methods..** This study was conducted on 22 patients. Photographs of each patient's maxillary model were taken from the frontal view in order to study apparent teeth width ratio. The perceived width ratios of lateral incisor to central incisor, canine to lateral incisor, first premolar to canine and second premolar to first premolar were calculated. In this study, the Golden proportion (62% or 0.62) was evaluated within the range of 59-65% (0.59 –

0.65). To evaluate the RED proportion in each subject, these width ratios were compared. The differences of 3% (0,03) or less were accepted.

**Results.** The Golden proportion was observed in 34% of the perceived width ratios of lateral incisor to central incisor, 0% of the width ratios of canine to lateral incisor, 36% of the width ratios of first premolar to canine and 18% of the width ratios of second premolar to first premolar. The average ratio value was 70%. The RED proportion existed in 16% (22 cases) of the width ratios comparisons (132 comparisons of 176 width ratios) with an average ratio value of 66% in these cases. Only 1 subject from 22 had on left maxillary hemiarch total RED proportion.

**Conclusions.** The Golden proportion was observed predominantly in width ratios of lateral incisor to central incisor and width ratios of first premolar to canine. In most cases the widths of canines cannot be included in any proportions. These both proportions can be used in reconstructive treatment in maxillary arch, but in conformative treatment the use of fixed constant proportions is limited.

**Key words:** Dental, Ratio, Golden, Proportions, Teeth.

### **385. INDICATIONS AND PARTICULARITIES OF THE CLINICAL-TECHNOLOGICAL STEPS OF MANUFACTURE OF TEMPORARY FIXED PROSTHETIC CONSTRUCTIONS**

Author: **Valeria Lupacescu**

Co-authors: Nicoleta Majeriu, Victoria Neamtu

Scientific adviser: Vasile Guțuțui, MD, PhD, Associate Professor, *Iarion Postolachi* Department of Prosthodontics, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

**Introduction.** Crown lesions as well as reduced partial dentation are the most common dental conditions, which require prosthetic treatment. Fixed treatment of crown dental lesions and partial dentation is permanently accompanied by grinding of hard teeth structures and without their manufacture is often impossible (I.Postolachi; V.Guțuțui 1990).

**Aim of the study.** The study of the particularities of the clinical picture of the crown dental lesions and of the reduced partial dentation by determining the effectiveness of the contemporary technologies for making the temporary fixed constructions.

**Materials and methods..** 25 patients was treated with prosthetic indications, age 22-47 years with coronal and edentulous dental injuries reduced to one or both jaws. The examination of the patients was performed clinico-instrumental, photometric, radiological; the diagnostic models in the articulator were studied. The Luxatemp Star Bisacrylic material was used to make the provisional crowns and bridges, made by the direct method. This is a high performance material by increasing the resistance to tearing and bending, and the grip time is reduced. The co-worker of these material provisional restaurants are aesthetic, durable and stable. Parallel high quality PMMA Bilkim material was also used, which allows the milling method to make fixed constructions of both single crowns and long-lasting dental bridges.

**Results.** The study argues that the construction of provisional constructions in case of coronal dental lesions and reduced partial dentation contributes to: protection of the dental pulp and gingival tissues from harmful factors (physical, chemical and microbial). It allows the prosthetic doctor to specify the diagnosis and to perfect the treatment plan and its motivation to the patient as well as to transmit some information to the dental technician. We mention that