Contemporary surgical treatment of dentofacial deformities

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Dentofacial deformities are functional and aesthetic problems. One of the most common ones in Slovenia is mandibular prognathism and maxillary retrognathism which results in Class III occlusion and requires a combination of orthodontic and surgical treatment. The basic points of pre- and post-surgical orthodontic treatments are known, also surgical procedures are standardized. But the problems of surgical planning, postsurgical stability and the aesthetics have still remained mainly because of the facial soft tissue's characteristics. Many studies of the facial soft tissues with three-dimensional (3D) analysis, ultrasound diagnostics and speech analysis were done in our department. The pre and postoperative 3D scanning of facial surface allowed to determine the average Slovenian face and the postoperative differences. The decision which orthognathic procedure is best for a good aesthetic result in correction of skeletal Class III deformity is not always straightforward. Three-dimensional imaging brings clear benefits in accurate measurements of facial morphology. One of our prospective studies was to verify objectively whether post-operative changes occur in regions not directly affected with surgical movements of the underlying jaw bones. According to the type of surgery - BSSO set-back of the mandible, Le Fort I advancement of maxilla or a combination of both, the pre- and post-operative optical scans were registered. According to the expectations, changes were the greatest in the regions where the underlying bones were moved. But regardless of the operation performed, changes were found over the whole face. Changes in the nose, cheek and upper lip region in BSSO group, in the lower lip and chin region in Le Fort I group confirm the concept of the facial soft tissue mask acting as one unit. Also other dentofacial deformities as skeletal Class II and asymmetries will be presented. This morphological and physiological knowledge can improve the treatment of dentofacial deformities referral to address these outstanding issues. Women with alcohol dependence and PTSD with a history of IPV want help however the health and social services do not always recognize their calls for help or their symptoms of distress. Recommendations are made for treatment centers to become trauma-informed that would help this recognition.

Biography

Natasa Ihan Hren graduated from the Ljubljana Faculty of Medicine and Faculty of Dentistry. She obtained Master of Science degree, and PhD degree in Maxillofacial and Oral Surgery specialty from Board of Maxillofacial and Oral Surgery. She is currently a Professor and Head of the Faculty Department of Maxillofacial and Oral Surgery, Medical faculty Ljubljana, Slovenia. She is subspecialized in Orthognathic Surgery. She is Lecturer, Research Project Coordinator and Advisor. Her current research trials are in the field of Basic Oral Pathology (peri-implant bacteria and peri-implantitis, cytokine characteristics of odontogenic cysts and other chronic oral inflammations) and in the field of Facial Skeleton (bone healing, osteoporosis) and Orthognathic Surgery with three-dimensional clinical and research implications.

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