31. PRINCIPLES OF ORTHODONTIC TREATMENT PLANNING IN ANGLE CLASS I MALOCCLUSION

Author: Lelic Iuliana

Scientific adviser: Sabina Calfa, MD, *Ion Lupan* Pediatric Oral and Maxillofacial Surgery and Pedodontics, *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova.

Introduction. Angle class I, also known as neutrocclusion, is the most common form of malocclusion. This dento-maxillary anomaly is characterized by a normal antero-posterior intermaxillary relationship, the presence of misaligned teeth, with or without minor skeletal changes.

Aim of study. Research for an optimal method of diagnosis and development of an effective treatment plan for Angle class I malocclusion.

Methods and materials. The study is based on data collected from 20 patients with frontal dental crowding. Each patient was diagnosed by performing the clinical and complementary examination - photostatic examination, analysis of study models, orthopantomography and teleradiography. An individualized treatment plan has been established to treat this malocclusion. Two types of treatments depending on the severity of the crowding were chosen. The patients were divided into 2 groups: Group I: fixed orthodontic treatment. Group II: orthodontic treatment with removable aligners.

Results. For group I, consisting of 12 patients, with a moderate degree of frontal crowding, the orthodontic treatment with fixed adhesive system lasted about 1.5 years. Whereas for group II, consisting of 8 patients, with a mild crowding, they wore detachable devices for up to 12 months. Following the analysis of the preliminary and final results of the treatment in the total group of 20 patients, changes of dento-facial parameters were observed. In group I patients, fixed orthodontic treatment had an efficiency of 90%. The 10% errors are due to the lack of systematic presentation to the orthodontist. In group II patients, the use of removable systems was 70% efficient. The 30% errors represent the patient's neglect to follow the special regimen established by changing the aligners every 2 weeks.

Conclusion. Over the last few years, it has been proven that removable orthodontic appliances allow for predictable results related to mild-degree crowding of teeth in Angle class I malocclusion.