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**THE VALUE OF STUDYING THE FEATURES OF THE USE OF METAL-CERAMIC
STRUCTURES IN ANOMALIES OF DEVELOPMENT AND POSITION OF TEETH***Rustamov Arslan**Samarkand State Medical University, Uzbekistan*

ABOUT ARTICLE

Key words: Topography of dental, Vertical and horizontal deformities.**Received:** 20.01.2024**Accepted:** 25.01.2024**Published:** 30.01.2024**Abstract:** Anomalies of the upper jaw are very common. According to various authors (1, 5), their prevalence in adults ranges from 28.8 to 37%. As for dental deformities, they are even more common, especially in patients with occlusal abnormalities complicated by dentition defects. According to a number of studies (2), such deformities occur in 67.1-69.4% of patients with partial tooth loss. Various methods of preparation for prosthetics are described in the dental literature (3, 4, 6). However, many problems remain unresolved.

INTRODUCTION

The purpose of this study was: to determine adequate methods of preparation and prosthetics of the alveolar system in various types of abnormalities and developmental pathologies in adult patients.

The materials and methods of the study were: studied and accepted for prosthetics in 162 patients (84 women and 78 men) aged 30 to 60 years. Dental malformations were detected in 102 patients (63.0%), dental deformities in 60 patients (37.0%). Anomalies of the development and position of the front teeth were detected in 32 (19.8%), anterior occlusion - in 31 (19.1%), prognathism - in 5 (3.1%), deep bite - in 35 (21.6%). Vertical and horizontal deformities of the dentition were detected in 42 and 18 patients, respectively 25.3% and 11.1%. The sizes and topography of dental defects were different in all patients. During the examination of patients, anamnesis was collected, examination of the face and oral cavity, examination of plaster casts of the jaws, radiography of teeth and jaws.

RESULTS AND DISCUSSION

With a slight inclination of the front teeth (up to 12°) in any direction (anterior, intraoral, mesial or distal), the living pulp of these teeth was preserved. With appropriate preparation of the teeth, followed by modeling of the metal frame and ceramic crown veneers, the patient underwent correction to achieve the desired aesthetic effect. If the inclination of the tooth exceeded 15° or the incisor edge was removed from the antagonist tooth by more than 2 mm, appropriate orthodontic preparation was carried out before prosthetics. It was found that even partial correction of the position of the teeth significantly improves the conditions for the subsequent manufacture and installation of metal-ceramic crowns. In patients with a somewhat pronounced rotation of the dentition (30° for the central incisors and 50° for the lateral incisors), such teeth were not depulped, but repositioned with appropriate prostheses and covered with metal-ceramic crowns or bridges, depending on the indications. If the maxillary central incisor was rotated by more than 30°, and the lateral incisor by more than 50°, such teeth were subject to depulping in priority, after which a cast pin tab was installed with the correct positioning of the remaining teeth in the dentition. Ceramic-metal crowns were used as coatings. Orthodontic treatment of deformity of the adult patient's jaw was planned taking into account its size, the position of the central incisors, the condition of the crown and periodontal tissues, as well as the type of bite. Before the manufacture of metal-ceramic crowns for the front teeth, prosthetics of dental defects in the lateral section (premolars and molars) and preliminary prosthetics of the bone system of the alveolar process were performed. If the central incisor did not have a significant slope (convergence or divergence) and was a small molar (<2 mm), two metal-ceramic crowns were made and orthodontic treatment was not performed. The peculiarity of the formation of the central incisor in this anomaly is that no more hard tissues are removed on the distal side of the central incisor than on the distal side of the central incisor; in the presence of a diastema of 2-4 mm, an inclination of the central incisor (convergence, divergence) of more than 15° and partial destruction of the crown, these teeth were ground and inlays were made. Cast pin tabs were made by changing the angle of inclination of the axis of the stump. In cases of combined premaxilla and trema, ceramic-metal crowns were made for all incisors or all front teeth, and the premaxilla and trema were removed by appropriate modeling. Prosthetics using braces were used for patients with large (more than three teeth) encapsulation defects or endodontic defects. High functionality and aesthetics were achieved through the use of clasp prosthetics for premolars and molars and a combination of metal-ceramic crowns and bridges for the front teeth. Immediate and long-term results of orthopedic treatment showed that in the process of proper preparation of the alveolar bone system for prosthetics, the use of an inclined plane plate for sagittal movement of the lower jaw led to an exacerbation of periodontitis and loosening of the front teeth in four patients. In all four cases, the inclined plane plate was replaced with a plastic mouth guard..

In the future, no such complications were observed. Three patients with sagittal displacement of the mandible by more than 2 mm complained of discomfort and pain in the temporomandibular joint and masticatory muscles. In three patients with mild periodontitis, an exacerbation of periodontitis occurred during the installation of a bite plate for the insertion of retractable teeth. Therefore, the device was removed, the erupted teeth dislocated and shortened to the required limit. The immediate results of the use of metal-ceramic prostheses for jaw deformations and dental anomalies after the manufacture of prostheses in all cases were good. The patients were satisfied with the aesthetics and functionality of the prostheses and did not complain. Long-term results over 2-5 years were analyzed for 47 cases. Of these, 42 (89.4%) patients had no complications, they were satisfied with the prosthesis and did not complain. Clinical and radiographic examination revealed no functional traumatic overload of the periodontal ligament. The abutment tooth was stable, there were no signs of inflammation in the mucous membrane of the gum around the abutment tooth. There was no bone resorption of the maxillary alveolar process in the area of the abutment of the ceramic-metal prosthesis. According to our observations, complications developed in only five patients (10.6%). Two of them (40.0%) had partial chipping of the ceramic veneers in the area of individual crowns and facets, one (20.0%) had non-fusion of the crown and two (40.0%) had apical periodontitis detected in the area of individual supporting teeth during X-ray examination.

To conclude: These favorable results allow us to recommend the introduction of orthopedic treatment methods into the dental practice of adult patients with alveolar bone abnormalities and dental deformities.

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