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STATE OF THE DENTOALVEOLAR SYSTEM IN PATIENTS WITH POSTTRAUMATIC NASAL DEFORMITIES

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ABOUT ARTICLE

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Abstract: In modern conditions of society development, improving the quality of medical care is of extremely important social significance. Scientific and technological progress and the totality of modern social relations impose increasingly high professional, moral, ethical and legal requirements to specialists in the field of health care [1,2,5].

INTRODUCTION

Maxillofacial anomalies occupy one of the first places among the diseases of the maxillofacial region and are characterized by significant morphological, functional and aesthetic disorders already at the early stages of bite formation. Most often there is a combination of sagittal and vertical anomalies of occlusion. Examination of the oral cavity plays a major role in the detection of dental pathology, diagnosis, choice of treatment method and is an important part of the general examination of the body. New ways of examining the organs of the dento-mandibular system allow a more correct, accurate and objective assessment of the condition of each of its components at this or that degree of involvement in the pathological process, to identify the possible influence of one pathological focus on another [8,9,10].

In modern dentistry, a significant place is occupied by bone-plastic surgeries performed for injuries and diseases of the mandible. For many years, domestic and foreign surgeons have been persistently engaged in the development of new, more effective methods of surgical treatment of this pathology. However, despite these efforts, not enough attention is paid to correct anomalies of teeth and dental rows in these patients[3,4].

A common cause of dentoalveolar deformities is pathologies that affect the development of the nasolabial processes of the maxilla, the anterior part of the zygomatic arches and the upper nasal passages. The issue of the influence of nasal septal deviation on the development of the pediatric organism as a whole and the dentoalveolar system is still poorly understood.

Nasal bone fracture occupies one of the leading places among injuries of the middle facial zone. The combination of nasal bone fractures with injuries of other parts of the middle facial zone is accompanied by disruption of the skin integrity, tissue detachment and bone defect, which subsequently leads to facial disfigurement. The results of treatment of patients in similar situations are often unsatisfactory, which is explained by the lack of clear and consistent recommendations in the implementation of therapeutic measures. Nasal bone fracture is an extremely common injury throughout the history of mankind. There is an average annual increase of 2% in traumatic injuries of the facial skeleton and nose. At the same time, more than half of patients require emergency hospitalization. The main reason for the growth of such pathology is due to the increase in the number of traffic accidents, domestic and man-made injuries [8,10].

The urgent problem is the provision of highly specialized care to patients with anomalies of the dentoalveolar system combined with deformities of the external nose, simultaneous surgical and orthopedic treatment to restore the basic functions of the dentoalveolar system and aesthetic parameters of the face [3, 4, 6, 7].

In combined deformities of the nose and dentoalveolar system, plastic surgeons limit themselves to correcting the external nose, and the dentoalveolar anomaly remains in the background.

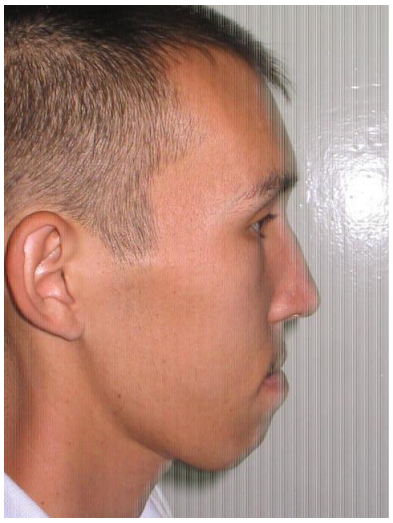
The aim of our study is to investigate the state of the dentoalveolar system in patients with posttraumatic nasal deformities.

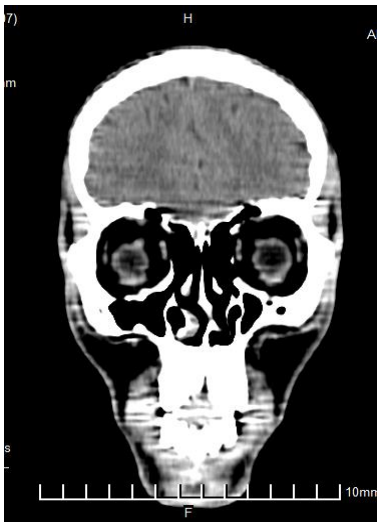
Materials and methods of research. There were 45 patients aged from 14 to 35 years under our observation. There were 30 males and 15 females. All patients had a history of combined trauma of bones of the facial skeleton.

All patients were examined, which included: subjective and objective: complaints, anamnesis collection, external examination, clinical and laboratory studies, radiologic studies, anthropometric studies, nasal breathing function. The patients were divided into 2 groups: Group 1 - 30 (66.6%) patients posttraumatic nasal deformity with nasal breathing disorder, Group 2 - group 15 (33.4%) patients posttraumatic nasal deformity without nasal breathing disorder.

Results of the study. Nasal deformities were noted in all patients. Of these, 18 (40%) patients had a saddle nose, and 27 (60%) patients had a humped nose.

The results of the study of the dentoalveolar system showed that 26 (57.7%) patients had posttraumatic deformation of the dental rows (narrowing of the upper dental row due to the loss of frontal teeth of the upper jaw - 15 patients, shortened dental row - 11 patients). Posttraumatic bite deformity was observed in 15 (33.3%) patients (open bite - 5 patients, cross bite - 6 patients, lower pronation - 4 patients). These signs were not observed in 4 (9%) patients. Nasal breathing disorders were observed in patients with combined injuries of the middle zone of the face (naso-orbital complex - 17 patients, nasoorbitoethmoidal complex - 13 patients).





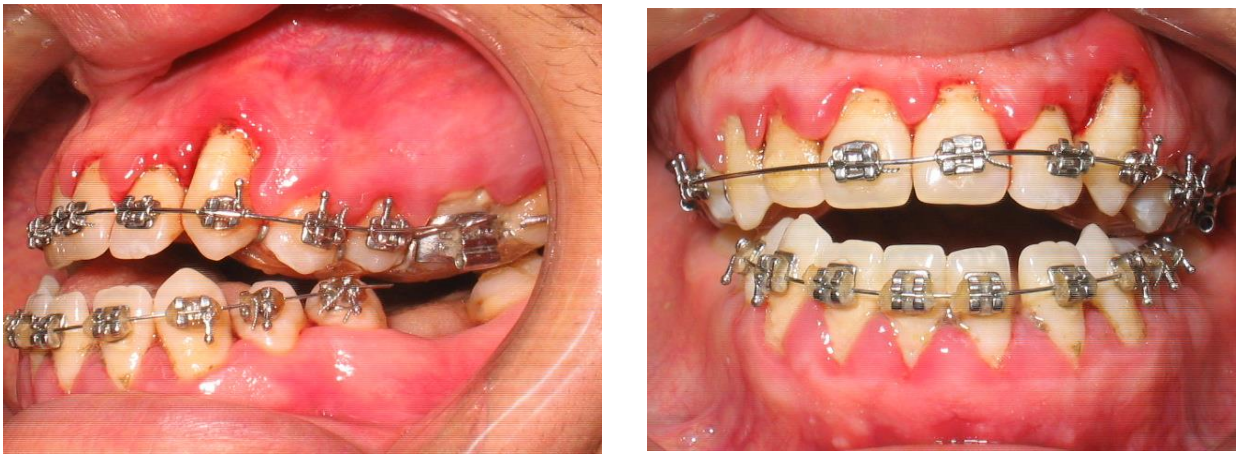


Figure 1: Face in full-face and profile, MSCT and bite of patient G.

CONCLUSIONS

1. In 66.6% of patients with combined injuries of bones of the facial skeleton in the posttraumatic period nasal breathing disorders are noted.
2. Combined trauma of the naso-orbital complex and naso-orbitoethmoidal complex leads to nasal breathing disorders.

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