On the basis of biometric examinations it was noted a violation of premolar and molar index by the method of Pont, as well as increase in the index of Bolton.

Class III malocclusion in removable bite used functionally active orthodontic appliances, in the permanent dentition is used removable design, straight-wire or self-ligating appliances.

The cephalometric examination for the study identified an increase in the angles SNB, ANB and the decrease SNA.

**Keywords:** Angle Class III malocclusion, dental anomaly, pronounced nasolabial fold and smoothed chin tuck, straight-wire or self-ligating appliances, angles SNB, ANB.

### TEETH WHITENING METHODS

#### Ciobanu Ana

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**Introduction:** Facial appearance is part of human communication channels. Communication based on the aesthetic interest our intimate relationships, the family one, the social, professional or unprofessional. Therefore we can not ignore the growing importance that dental aesthetic has. In last few years whitening methods takes a leading place in treatment of tooth discoloration. The aim of this research is to study and apply in practice some teeth whitening methods.

**Material and methods:** 35 patients in age from 18 to 37 were examined (33 women and 4 men with different tooth discolorations). In order to demonstrate the effectiveness of Opalescence whitening system, own clinical cases have been analyzed.

**Results:** In all 4 groups of patients, whitening system "Opalescence" has presented good results. All patients had a decrease of tooth discoloration which was observed form the next visit. In 2 cases, patients have a temporary hypersensitivity to cold and warm, which was removed by applying gels like Flor Opal or Ultraeze (Ultradent). Patients have been instructed how to take care of their teeth in order to maintain newly acquired color. From prophylactic considerations, we recommended fluoride toothpaste "Sensodyne" and whitening toothpaste "Opalescence".

**Results:** Analysis of literature data shows that dentists now have multiple methods of treatment for tooth discoloration (veneers, bleaching), but these have to be applied according to the damage degree of dental tissues. Teeth whitening methods require patient monitoring and have to be performed in combination with remineralization therapy.

Key words: teeth whitening, opalescence, bleaching.

## **DENTAL ROOT ABNORMALITIES**

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**Introduction:** The tooth is the result of a long process of cellular changes occurring in the ecto-mesodermic tissues of the stomodeum. Theoretically, but not practically, the tooth can be morphologically

variable, considering its ecto-mesodermic origin and its appearance in an area of border and continuity of the ectoderm into the endordem. The atypical tooth morphology can refer to the crown portion and/or root portion and to its implantation in the alveolar bone. Dental anomalies are congenital abnormalities that occur in the growth and development of the dental system, which leads to tooth deviations from a normal type in terms of shape, number, location and implant position. Root morphology, especially the endodontic configuration of root structures may be crucial in the endodontic treatment and the maintenance of the tooth in the arch. Root and canal configuration can be the cause of endodontic treatment failure. Detection failure of root canals or their ramifications in the apical third is one of the most common complications in the endodontic treatment. Considering the above mentioned, the raised issued is not fully elucidated and requires some research.

**Purpose:** to study the root anomalies of various groups of permanent teeth and the causes that can lead to those.

# **Objectives:**

- The study of bibliographic sources on the current topic;
- Analysis of some radiological clichés of permanent teeth roots with a normal anatomical structure and with developing anomalies.
  - A clinical study based on extracted permanent tooth.

Materials and methods: While fulfilling the outlined objectives I researched 31 foreign and domestic literary sources, I analyzed 56 radiological clichés with various dental anomalies, and I selected 47 permanent teeth with anomalies of the dental roots from the 215, extracted on different reasons, teeth.

The radiological clichés were analyzed using X-ray fluoroscopy. The 47 teeth were studied macroscopic and with a magnifier capable of enlarging the image 10 times.

Results: The data we obtained shows that the radiological examination complements the clinical one, bringing useful information; especially when the root segment is affected by anomalies. In radiological clichés analysis I found that dental roots may show various deviations from normal that take different forms. We have cases like: mono-radicular root duplication of the incisors and premolars; incisors accessory roots; accessory roots of upper and lower premolars; taurodontism; dilaceration; flexia; short roots, thin roots, or concrescent roots; tooth in a tooth. Anatomical study of the extracted teeth provided us a number of deviations from their normal structure. The following were detected: a number of supernumerary roots in the incisors, premolars and molars group; root flexia; convergence. A special interest presented the tooth germination where a dental germ is divided causing crown duplication with a small root.

**Conclusions:** After analyzing the literature sources, the x-rays and the extracted teeth, we can indicate that root anomalies are encountered rarely. These are usually caused by hereditary or genetic defects or spontaneous genetic mutations. Anomalies can also have environmental and traumatic causes.

The result of our research confirms again that the x-ray examination brings very useful information that becomes indispensable in more difficult cases where anomalies are involved.

We also found various clinical forms of root anomalies, in the extracted teeth, which probably lead the doctors to remove them. Identification of root abnormalities and of the specific form, are very important in terms of endodontic treatment because when root anomalies probability is not taken into account the risk of various incidents and aggravations during the endodontic treatment rises which can lead to a final failure.