

Pathologic findings in the toothless parts of the jaw-bones

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Summary

Objectives: From a focal standpoint the toothless parts of the jaw-bones are the most difficult and at the same time interesting object for diagnosis and treatment.

Methods: 518 patients, men and women till the age of 75 that had been given a specialized medical aid in the Faculty of Stomatology of the Medical University - Sofia, Bulgaria were the object of our research work. Complex focal diagnosis, including a complete roentgenologic status, an electro-dermal test (EDT) and local-thermometrical test (LTT) was done to all patients. An individual plan of treatment was worked out. The patients that had undergone the appointed surgical treatment were tested for control the 1st, 6th and the 12th month after the operation.

Results: The research work on the toothless parts of the jaw-bones by both graphic (a conventional roentgenography) and clinical methods (EDT and LTT) gives the most accurate notion for the finding and the dynamics of the disturbing areas. Pathologic findings were ascertained in 38% of the examined 518 patients by the roentgenologic analysis.

Conclusions: The pathologic findings in the toothless parts of the jaw-bones are serious disturbing areas.

Keywords: pathologic findings; toothless parts of the jaw-bones; complex focal diagnosis; conventional roentgenography.

Introduction

From a focal standpoint the toothless parts of the jaw-bones are the most difficult and at the same time interesting object for diagnosis and treatment [1,2,3]. The pathologic findings at their level are numerous and have physiologic and pathologic genesis [4,5,6]. The first thing necessary for their diagnosis is a complete roentgenologic status to be done, including extra- and intra-oral roentgenographies. Having analyzed the roentgenographies we discovered a great variety of findings because of the different age-range of the patients [7,8]. The physiologic findings included the natural eruption of the temporary and permanent dentition (we give an account of the fact that actually permanent teeth do not erupt in toothless

jaws) and the replacement of the first by the second. There was a difference concerning the retained teeth, more often wisdom teeth and canines, but also not rarely premolars and incisors in transposition.

The pathologic findings included post-operative states: postextraction perforations of the maxillary sinus, roots left; residual persisting inflammatory processes; foreign bodies in the jaw-bones and the gingiva; amalgam in the spongiform part of the bone; amalgam in fresh extraction wounds; root canal fillings (able or unable to be resorbed); chronic osteomyelitis; early postextraction osteitis; osteolysis around intra-osseously situated metals [9,10,11]. We accepted as physiologic the osseous changes around different kinds of implants (metal or ceramic) from the first to the sixth month of

osteointegration after their implantation (though it is actually a traumatic inflammation after a difficult operative intervention) and as pathologic - the changes after the sixth month until the moment of their registration.

Material and methods

Five hundred and eighteen patients were the object of the research work, men and women till the age of 75, who had been given a specialized medical aid in the Faculty of Stomatology of the Medical University - Sofia, Bulgaria.

Complex focal diagnosis, including a complete roentgenologic status, an electrodermal test (EDT) and local-thermometrical test (LTT) was done to all patients. An individual plan of treatment was worked out. The patients that had undergone the appointed surgical treatment were tested for control the 1st, 6th and the 12th month after the operation.

Results and discussion

The research work on the toothless parts of the jaw-bones by both graphic (a conventional roentgenography) and clinical methods (EDT and LTT) gives the most accurate notion for the finding and the dynamics of the disturbing areas.

Pathologic findings were ascertained in 38% of the examined 518 patients by the roentgenologic analysis. Both EDT and LTT proved this activity in 86% of the roentgenologic findings.

The roentgenologic findings and the EDT and LTT results were grouped as follows:

Retained teeth

Roots left

Foreign bodies

Residual persisting inflammatory processes (restosteitis)

Molars took the 1st place (83.7%) in the retained teeth group (Figure 1), followed by

the incisors (9.3%) and the premolars (7%). The semiretained teeth were only registered as a finding without discussion on their significance. The almost complete coincidence of the results of the clinical (EDT and LTT) and paraclinical (roentgenologic) toothless jaws parts examinations makes impression.

The active retained roots found at the first appointment comprise 81.7% and the progressively decreasing activity of the bone found at the control examinations in and around the disturbing areas after their surgical treatment show the following percentages: after the first (69.0%), the sixth (36.6%) and the twelfth month (22.5%).

The foreign bodies found are grouped and represented according to their first finding. The appointed surgical treatment of the focuses of that kind most often caused controversial opinions among the surgeons and made our working together very difficult. As the matter concerned iatrogenically-made focuses, in some cases we had problems, produced by the refusal of the informed patients. This gives a reason for us to emphasize once more that the best prophylaxis of the stomatologic disturbing areas is the precisely made endodontic treatment.

The residual persisting inflammatory processes (the restosteitis) were the most difficult to be cured and that caused their activity to persist 12 months after the treatment in 58.3% of the patients. That is probably due to the various character of the post-extraction healing period of the infected and destructed osseous wound around the focus, to the attending or not of certain physiotherapy procedures, as well as to the immunostimulators for the general and local reactivity recovery.

Conclusion

1. The pathologic findings in the toothless parts of the jaw-bones are serious disturbing areas in 38% of the examined patients. The retained teeth, respectively molars (83%),

incisors (9.3%), premolars (7.00%) play a prominent part in these disturbances.

2. The retained roots are also a serious problem of the patients having focal infection - 81.7%.

3. The foreign bodies and the perforations take a minor part in the occurrence of the disturbing areas (1.6% - root canal filling gone out through the dental apex, 0.9%

- broken canal instruments and 0.8% - perforations).

4. The residual persisting inflammatory processes are the most difficult to be cured and remain active in 58.3% of the patients 12 months after the treatment, as found out by the focal diagnosing.

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