

Analysis of Errors and Complications Found in the Use of Endocanal Constructions Used in Dentistry

Erkinova Sevinch Shokhimardonovna
Clinic resident of the Department of Orthopedic Dentistry

Hadzhimuradov Burkhan Ravshanovich
Assistant Department of Orthopedic Dentistry
Samarkand State Medical University Samarkand, Uzbekistan



Abstract

Restoring defects in the hard tissues of the teeth is one of the pressing problems of prosthetic dentistry. Restoring rotten teeth with endocanal pins has always been one of the main problems of Dentistry. The choice of the type of needle and the determination of the number of numbers depends on the size and permeability of the canal after endodontic treatment, the number of root canals, the loss of the mass of dentin, the distance to antagonists and adjacent teeth. Needlewomen should ensure the long life of endodontic obturation, the restoration of the crown-root part of the tooth in the simplest way, taking into account the anatomy of the tooth canal. However, many doctors do not take into account the anatomical features of the loss of the dentin mass or the characteristics of the pins used. At all stages of the production of pin structures (SC), errors can be made that lead to the development of immediate or long-term complications. It is worth noting that it is impossible to talk about the advantages of pim constructions in general, it is possible to talk only about indications or contraindications for the use of a specific pin construction in a particular clinical case. in orthopedic Dentistry, the percentage of premature replacement of fixed structures remains high due to improvements in clinical techniques and technological processes, complications and unsuitable for their use. The main reasons for removing the rigid structures of dental prostheses are medical errors in the preparation of the patient's oral cavity for prosthetics, unreasonable choice of designs of prostheses and materials for them, non-compliance with the rules of treatment steps and manipulation. the use of techniques, tactical errors, imperfect technologies during odontopreparation. Therefore, the need to study this problem is urgent and timely in order to prevent and eliminate clinical errors, as well as to avoid complications that arise in the orthopedic treatment of patients with defects in the crown of the teeth with pin structures.

Keywords:

Introduction

Research Objective:

Analysis of complications in the restoration of defects in the crown part of the teeth with endocanal pin structures.

Materials and Research Methods

To achieve this goal, a comprehensive examination was carried out of 84 patients aged 20-55 years who had previously undergone dental treatment for defects in the hard tissues of KK teeth. In total, the quality of orthopedic treatment of SC defects in the crown part of 122 teeth was determined and studied. Of these, 79 are in the upper jaw and 37 are in the lower jaw. The dental position was studied under artificial light using a standard set of tools (Mirror, probe, tweezers). Traditional methods have been used to assess the condition of pin structures during oral cavity examination (examination, examination, examination, etc. "Medical records of a dental patient" records clinical errors and complications. The method of analysis of occludograms was used to determine early contact, since the determination of the interclavate contact of teeth is an important diagnostic criterion in assessing the quality of dental orthopedic treatment. Occludograms are obtained according to the generally accepted technique. [39]. In patients who are directly in the oral cavity, occlusive connections of antagonist teeth have been identified in the area of existing postconstructions. In total, 126 occludograms were taken and analyzed. For the calculation and analysis of the indicator describing the degree of defect in the completed orthopedic dental treatment, we will consider M.Z. Mirgazizov [39]. To apply this indicator, a list of possible defects caused by clinical errors was compiled, and the weight coefficient of each type of defect was masterfully determined:

- 1) rational use of root canal length;
- 2) violation of the topography of the root canal axis;
- 3) tooth root puncture;
- 4) excessive expansion of the root canal;
- 5) low-quality filling of post bed;
- 6) obturation of a low-quality root canal at the endodontic treatment stage;
- 7) improper restoration of occlusive relationships;
- 8) aesthetic untouchability;
- 9) presence of marginal periodontium pathology
- 10) the presence of functional overload;
- 11) the design does not satisfy the patient for various reasons.

In the absence of clinical errors, the defect rate of the completed treatment is 0.

In addition, when checking and assessing the quality of restoration of the crown part of the tooth, the following indicators are noted: color, shape, degree of mechanical wear, violation of the integrity of the edges and chewing surfaces, compliance with anatomy. form

Results of the study: the results of the study show that in $77.2 \pm 1.9\%$ of cases in clinical practice there were various clinical errors and complications in the recovery of defects in the crown part of the SC teeth. It has been found that reliable ($p < 0.05$) indicators of clinical errors and the occurrence of complications have been found when evaluating the results of restoration of defects

in molar teeth ($76.3 \pm 2.5\%$) and solid tissue of premolar teeth. $76.5 \pm 2.3\%$) and less - defects of the crown part of the incised teeth during the restoration of SC - in $67.5 \pm 2.3\%$ of cases, when restoring defects in the coronal part of the teeth with the help of buttonholes, dentists made the following clinical errors and complications: rational use of the length of the root canal, violation of the topography, poor-quality filling of the post bed with cement, poor-quality obturation of the root canals. A study of cases of unreasonable use of root canal length in the restoration of hard tissue of SK teeth found that this clinical error occurred in $28.9 \pm 2.9\%$ of cases. Dentists allowed the rational use of the length of the root canal in the production of buttonholes for the restoration of the hard tissues of the tooth by $36.2 \pm 5.0\%$, teeth - $28.1 \pm 5.1\%$, premolars - $29.1 \pm 2.6\%$. and teeth-in $21.0 \pm 1.9\%$ of cases, respectively.

We have identified significant differences between the frequency of cases of unreasonable use of the length of the root canal in the restoration of teeth and molars. At the same time, when we evaluated the quality of molar SC recovery, we noted a much larger ($p < 0.05$) value of the sign studied.

An assessment of the quality of SK tooth hard tissue restoration has found excessive root canal expansion in $8.3 \pm 2.2\%$ of cases. Most often ($p < 0.05$), this error is detected when evaluating the quality of premolar KK recovery - $15.4 \pm 3.8\%$ of the cases and rarely, when studying molar cylinder recovery- $1.8 \pm 2.4\%$ of cases. Cases of excessive expansion of the diameter of the root canal during the restoration of defects in the hard tissues of various groups of teeth with a tooth pin are common, $P \pm S$. Disruption of the topography of the root canal axis in the recovery of the hard tissue of SK teeth occurred in $19.8 \pm 2.6\%$ of cases. Analysis of the results of the study showed that during the restoration of the hard tissues of the SK teeth, $26.5 \pm 6.9\%$, the teeth were found to have a violation of the topography of the axis of the tooth canals at $21.7 \pm 3.4\%$, teeth $18.0 \pm 3.7\%$ and premolars $17.9 \pm 2.0\%$ of cases. Frequent occurrence of Root Canal axis topography violations in the restoration of defects in the hard tissues of different groups of Pim structural teeth, $P \pm S$.

The study showed that during the restoration of defects in the hard tissues of SK teeth, doctors allowed Root punctures in $3.7 \pm 1.8\%$ of cases, including: molars in $7.9 \pm 1.1\%$ of cases, and rarely in the premolar and dental caesarean section. In $3.7 \pm 2.5\%$ and $3.0 \pm 2.0\%$ cases. The rate of Root puncture during the restoration of defects in the hard tissues of various groups of teeth using Pin structures, $P \pm S$.

Analysis of the results of clinical studies showed that poor-quality filling of the post-bed with cement was detected during the treatment of teeth with SC in $8.8 \pm 1.2\%$ of cases.

Frequent occurrence of poor-quality filling of the post-bed with cement during the restoration of defects in the hard tissues of various groups of post-structural teeth.

Most often, this clinical error was detected by us when we evaluated toothed KS recovery in $11.5 \pm 1.3\%$ of cases, and in rare cases $2.4 \pm 2.2\%$ of cases, and during the recovery of hard tissue KK. Incisors and premolars in 13 and $5 \pm 3.8\%$ and $6.9 \pm 2.0\%$ of cases.

Conclusion

1. In clinical practice, in $77.2 \pm 2.8\%$ of cases, various clinical errors and complications occurred during the restoration of defects in the crown part of the SC teeth. Significantly higher rates of

error and complications in the recovery of SC defects in Molar hard tissue ($75.2 \pm 2.5\%$) and premolars ($76.5 \pm 2.3\%$) were found to be lower in the recovery of SC defects in the coronary portion. teeth ($64.5 \pm 2.3\%$).

2. Treatment of completed SC is determined by high indicators of defect level (1.67 ± 0.08). In the lower jaw (1.84 ± 1.07), defects in the coronal part of the teeth (0.64 ± 0.04), significant large indicators of the degree of treatment defect completed during the restoration of the crown part of the SC teeth were found. premolars (1.78 ± 0.05) and molars (1.80 ± 0.11).

3. The methodological approaches proposed by us help to prevent and eliminate clinical errors and complications in the treatment of patients with defects in the hard tooth tissues of dental structures.

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