POLTAVA STATE MEDICAL UNIVERSITY
DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY

THE PREVENTION OF POSTOPERATIVE COMPLICATIONS AFTER MOLARS EXTRACTION

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Relevance of the topic

Despite the fact that modern dentistry is focused on preserving of the integrity of the natural dentition, tooth extraction during exacerbations of destructive forms of periodontitis still remains the most common surgical intervention in oral surgery. Therefore, improving the technique of this manipulation has a great importance for the effective prevention of local complications.

The purpose of the study

to establish the possibility of the improving of the operation of tooth extraction with exacerbation forms of chronic periodontitis by prescribing electrophoresis with aprotinin-based drug to patients in the postoperative period, which affects on the course of the inflammatory reaction and prevents the development of postoperative complications

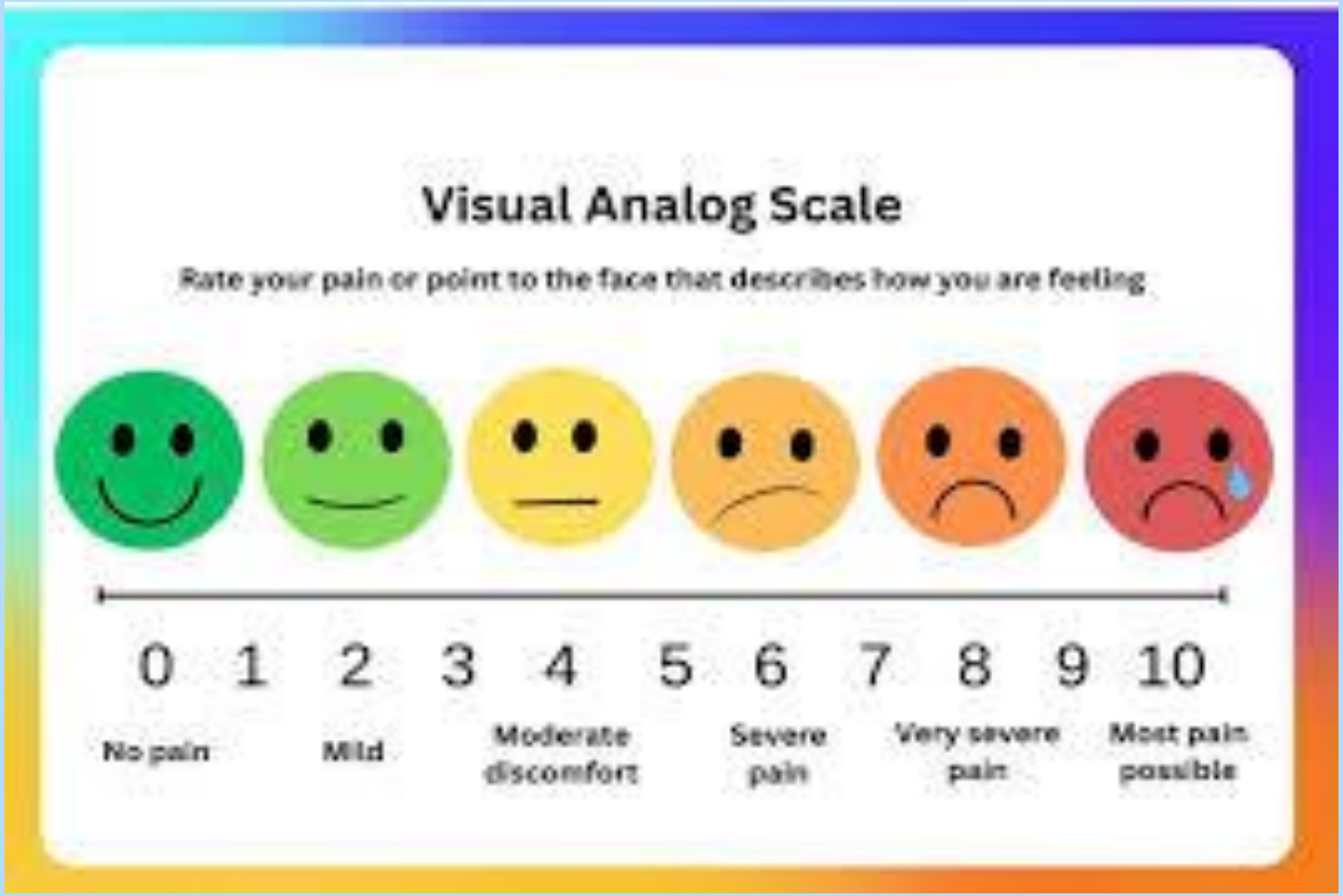
Materials and methods

Patient group	Number of people	Diagnosis	Метод лікування
Experimental	35	19–exacerbation of chronic granulating periodontitis; 16–exacerbation of chronic granulomatous periodontitis.	Improved methodology
Control	35	19–exacerbation of chronic granulating periodontitis; 16–exacerbation of chronic granulomatous periodontitis.	Standard protocol

Aprotinin electrophoresis was offered to patients during the first 3 days after surgery. Aprotinin electrophoresis is an effective physiotherapeutic method in the complex treatment of maxillofacial pathologies, especially in injuries, postoperative conditions and inflammatory processes.

Aprotinin is a representative of natural polyvalent inhibitors of proteolytic enzymes, which consists of 58 amino acids. It is obtained from the lungs of cattle. It has been proven that aprotinin has anti-inflammatory, antifibrinolytic, antishock effects. It reduces the destruction of complementary proteins, basophils, mast cells and the release of inflammatory mediators from them. It improves hemostasis, reduces swelling and pain, improves microcirculation and healing of postoperative wounds.

METHODS OF EVALUATING THE CONDUCTED RESEARCH



Scoring of oral mucosal hyperemia

Score	Description
0	ABSENCE OF HYPEREMIA
1	HYPEREMIA IN THE AREA OF THE SOCKET OF THE EXTRACTED TOOTH
2	HYPEREMIA EXTENDING TO THE VESTIBULE OF THE ORAL CAVITY
3	HYPEREMIA EXTENDING TO THE VESTIBULE AND CHEEK

Scoring of the spread of postoperative edema to soft tissues

Score	Description
0	ABSENCE OF POSTOPERATIVE EDEMA
1	POSTOPERATIVE SWELLING AROUND THE TOOTH SOCKET
2	POSTOPERATIVE SWELLING AROUND THE TOOTH SOCKET AND CHEEK
3	IINFILTRATION (DENSIFICATION OF THE PERIOSTEUM) IN THE AREA OF THE ALVEOLAR PROCESS NEAR THE EXTRACTED TOOTH AND PASTINESS OF THE SOFT TISSUES OF THE CHEEK

* Scoring of the condition of the socket of an extracted tooth

Score	Description
0	ALVEOLAR IS FILLED WITH A FORMED BLOOD CLOT
1	HEMORRHAGIC-SEROUS DISCHARGE
2	SIGNS OF PURULENT-NECROTIC ALVEOLITIS

* ASSESSMENT OF THE CONDITION OF THE REMOVED 1.6 ON THE 3RD DAY OF EXAMINATION OF A PATIENT FROM THE CONTROL GROUP

* ASSESSMENT OF THE CONDITION OF THE REMOVED 1.7 ON THE 3RD DAY OF EXAMINATION OF THE PATIENT IN THE STUDY GROUP

*Clinical results

Results of subjective pain assessment (VA scale)

GROUP/DAY	1ST DAY	3RD DAY
RESEARCH/35 PERSONS	1,8±0,86*	0,2±0,24*
CONTROL/35 PERSONS	2,5±0,64	0,9±0,8

* - significant difference ($p<0.05$) compared to the control group

* Results of objective visual-palpatory total assessment of local inflammatory

GROUP/DAY	1ST DAY	3RD DAY
RESEARCH/35 PERSONS	2,67±1,11*	1,8±0,86*
CONTROL/35 PERSONS	4,13±1,36	2,97±1,60

* - significant difference ($p<0.05$) compared to the control group

Conclusions

A scheme for the prevention of complications and treatment of local inflammatory manifestations during the extraction of molars with aggravation of chronic forms of periodontitis includes electrophoresis of aprotinin-based drug to the faster elimination of manifestations of local acute inflammatory reaction and prevention of the occurrence of postoperative complications.

This technique allows to bring the manipulation of molar removal to a qualitatively new level, and can be used in the practice of dental surgeons in the provision of outpatient dental care.