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Antinociceptive protection in endodontic procedures

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doi10.18411/gq-31-03-2018-12

idsp000001:gq-31-03-2018-12

Abstract

The implementation of the model of preventive and multimodal antinociceptive protection of the pain syndrome associated with endodontic interventions in acute complicated forms of carious lesions is a promising task for modern dentistry.

Keywords: endodontic intervention, pain syndrome, local anesthesia, antinociceptive protection.

Research methods.

The study involved 200 patients with acute complicated forms of carious lesions. The stratification of the participants into 2 groups of 100 people was carried out in accordance with the traditional approach and the antinociceptive protection technique. The traditional approach for endodontic intervention was used in the control group (n=100 people): local anesthesia with articaine hydrochloride 40 mg/ml + adrenaline hydrochloride 10 µg/ml 1.7–3.4 ml; the use of ketorolac tromethamine 10–40 per os during the first day of the postoperative period. The developed approach was applied to the main group (n=100 человек): ketorolac tromethamine 30 mg in 10–20 ml of 0.9% NaCl solution iv bolus shortly before the endodontic intervention and local anesthesia (articaine hydrochloride 40 mg/ml + adrenaline hydrochloride 10 µg/ml 1.7–3.4 ml). The standardization of the compared groups was achieved by ensuring the identity of the intra-group distribution of the participants in accordance with gender and age, forms of acute carious complications, local anesthesia techniques. The pain syndrome and the level of situational and personal anxiety were assessed during the follow-up period.

Research result.

The developed program of antinociceptive protection for endodontic interventions is an optimal solution of the problem due to the following functional characteristics in the form of statistically significant advantages in comparison with the traditional approach ($p < 0.05$): a decrease in the level of intraoperative "stressority" by 25.8–48.14%; the actual prevention of the development of postoperative pain syndrome of any intensity in 96% of cases; the prevention of an increase in the level of situational anxiety due to the absence of postoperative pain syndrome in 77% of cases.

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