

APPLICATION OF TRAUMEEL S IN THE TREATMENT OF INFLAMMATORY DISEASES OF THE MAXILLOFACIAL REGION

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Abstract

This review article discusses current approaches to the use of **Traumeel S** in the management of inflammatory diseases of the maxillofacial region, including periodontitis, peri-implantitis, abscesses, and phlegmons. The mechanisms of inflammation and the influence of homeopathic remedies, particularly Traumeel S, on these processes are analyzed. Special attention is paid to the effectiveness of the drug in the postoperative period for reducing edema and pain syndrome, as well as optimizing wound healing. The efficacy of combined treatment using Traumeel S in conjunction with other medications is also considered. In addition, the article presents the results of clinical studies confirming the high effectiveness of this homeopathic preparation in patients with hypersensitivity to conventional pharmaceutical agents.

Keywords: Traumeel S, inflammatory diseases, maxillofacial region, homeopathy, combination therapy.

Relevance

Any surgical procedure performed in the oral cavity is associated with certain risks, including the development of postoperative inflammatory complications. Inflammation during the early postoperative period may cause discomfort, reduce the patient's quality of life, and prolong the recovery process. Such inflammatory reactions as edema, pain, hyperemia, and peri-implantitis can significantly impair tissue healing and affect the success of surgical treatment.

Considering these risks, the development of methods for the prevention and treatment of inflammatory processes arising after surgery in the maxillofacial region remains an important task in modern dentistry.

One of the most promising approaches is the use of homeopathic preparations that exert therapeutic effects on inflamed tissues without causing the pronounced adverse reactions commonly associated with conventional pharmacological agents [4].

Traumeel S, developed according to homeopathic principles, is becoming increasingly popular in dental practice [4]. It is a multicomponent preparation containing plant extracts, minerals, and other biologically active substances that possess anti-inflammatory, antiseptic, regenerative, and immunomodulatory properties.

One of the key mechanisms of action of Traumeel S is its ability to modulate the immune response. The drug stimulates the body's natural defense mechanisms by activating phagocytosis and cytokine production, thereby promoting tissue regeneration and healing. In particular, its anti-inflammatory effect is associated with the reduction of pro-inflammatory mediators such as interleukins and prostaglandins, helping to control inflammation at the cellular level and prevent the development of more severe inflammatory complications.

Furthermore, Traumeel S contributes to the normalization of microcirculation in the area of dental implantation, accelerating the delivery of oxygen and nutrients to damaged tissues and enhancing healing processes. Thus, the drug not only provides anti-inflammatory effects but also supports tissue regeneration and recovery following surgical intervention.

Traumeel S is frequently used during the postoperative period as part of comprehensive therapy that includes antibiotics and other anti-inflammatory medications. Its distinctive feature is the possibility of administration in patients who are prone to adverse reactions to conventional drugs. Traumeel S is used not only for the prevention of inflammatory processes but also for the treatment of established complications such as edema, pain, and hyperemia.

The aim of this review was to analyze available studies concerning the use of the homeopathic preparation Traumeel S for the prevention and treatment of inflammatory complications following surgical procedures in the maxillofacial region.

Materials and Methods

This review was based on the analysis of scientific publications devoted to the use of Traumeel S in dentistry. Contemporary studies published in medical journals were included, providing detailed information regarding the effectiveness of this homeopathic remedy in the treatment of inflammatory diseases of the maxillofacial region.

Results and Discussion

Traumeel S is used for the prevention and treatment of purulent-inflammatory diseases of the maxillofacial region [11,12], peri-implantitis [5], and for preventing the development of necrotic changes in the dental pulp [4].

In a comparative study conducted by foreign researchers, the pronounced anti-inflammatory, antiseptic, and regenerative effects of Traumeel S were demonstrated, contributing to optimal tissue healing and pain reduction in patients with alveolitis. Fifty-eight patients aged 18–60 years diagnosed with alveolitis following tooth extraction were examined. In the main group, $93\% \pm 0.07\%$ of patients with serous alveolitis who received Traumeel S as part of comprehensive drug therapy showed complete resolution of pain, soft tissue edema, and hyperemia by the second postoperative day compared with the control group. Gradual restoration of mandibular

function and temperature sensitivity was observed. In cases of purulent alveolitis, jaw function recovered on the third and fourth postoperative days. These findings indicate that the inclusion of Traumeel S in combination therapy facilitates more rapid elimination of inflammation in tooth sockets and shortens the active disease period to 2–3 days [8].

Traumeel S may serve as an effective alternative to dexamethasone for controlling pain, swelling, and trismus following extraction of mandibular third molars. This conclusion was reached by Souza et al. following a randomized clinical trial involving 17 healthy patients with a mean age of 20.94 ± 5.83 years who underwent bilateral extraction of asymptomatic mandibular third molars [3].

Furthermore, clinical evidence suggests greater effectiveness of Traumeel S during the postoperative period, with fewer adverse effects and better tolerability compared to traditional nonsteroidal anti-inflammatory drugs. Das et al. conducted a study involving 20 patients aged 20–60 years who underwent surgery for moderate chronic generalized periodontitis. Both analgesic consumption and perceived pain levels were significantly lower in the Traumeel S group than in the ibuprofen group ($P < 0.001$). Improved tissue response was also observed in the Traumeel S group compared to the ibuprofen group ($P < 0.05$). The study demonstrated that Traumeel S was superior to ibuprofen in postoperative pain management following periodontal flap surgery while producing minimal or no side effects [2].

Additionally, published evidence supports the effectiveness of Traumeel S as an alternative to nonsteroidal anti-inflammatory drugs and corticosteroids for the prevention of stomatitis in patients undergoing chemotherapy [7].

According to treatment outcomes in patients with mild and moderate periodontitis, comprehensive therapy incorporating Traumeel S proved more effective than conventional treatment approaches [6].

Other investigators reported favorable clinical outcomes of Traumeel S in the management of chronic generalized periodontitis of moderate severity in patients with type 2 diabetes mellitus. Positive treatment outcomes were observed in 91.6% of patients in the main group compared with 47.6% in the control group. After 12 months, periodontal abscess formation was detected in 8.3% of patients in the main group and in 52.4% of patients in the control group. These findings demonstrated that Traumeel S was well tolerated and had virtually no contraindications [10].

Traumeel S may be administered through various routes depending on the clinical situation and the patient's condition. Injectable forms provide rapid and localized action at the site of inflammation. The drug is also available in tablet form, which is convenient for prolonged postoperative administration, and as an ointment for topical application in cases of soft tissue inflammation surrounding teeth. These dosage

forms allow clinicians to select the most appropriate therapeutic regimen according to individual patient needs [9].

To achieve maximum therapeutic benefit, domestic researchers recommend combining Traumeel S with **Phagodent**, an antibacterial preparation that accelerates rehabilitation following dental implantation. Clinical studies have demonstrated the effectiveness of this combination therapy in optimizing tissue healing and reducing the risk of peri-implantitis [1].

Moreover, dosage and duration of treatment should be determined according to the severity of inflammation and the patient's overall condition. An individualized approach is essential, as therapeutic outcomes may vary depending on the clinical scenario.

Therefore, a more objective assessment of the effectiveness of Traumeel S requires multicenter randomized clinical trials that encompass various forms of inflammatory diseases of the maxillofacial region and diverse patient populations. Such investigations may help identify factors influencing therapeutic efficacy and establish optimal dosage regimens for different clinical groups.

Conclusions

The use of Traumeel S in inflammatory diseases of the maxillofacial region represents a promising direction in oral and maxillofacial surgical practice. Numerous clinical studies have demonstrated its effectiveness in reducing inflammation, edema, and pain, while promoting tissue healing. The preparation exhibits pronounced antiseptic and regenerative properties, making it a potentially valuable therapeutic option during the postoperative period.

Nevertheless, further well-designed scientific investigations are required to provide more reliable and evidence-based conclusions. Such studies may ultimately support the recommendation of Traumeel S as a standard adjunctive treatment for the prevention and management of inflammatory diseases of the maxillofacial region.

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