SCIENTEX CONFERENCES
Where Holistic Knowledge Blooms

Orthopedic 2022

2nd Annual Conference on

Orthopedics, Rheumatology and Musculoskeletal Disorders

November 14-16, 2022 | Dubai, UAE

https://www.orthopedic.scientexconference.com

orthopedicsglobal@scientexconferences.com

+1-619-738-6364

Carboxytherapy in the management of temporomandibular joint pain dysfunction syndrome and masticatory muscle hypertonicity

Name: Karina Popova
Affiliation: A.Y. Drobyshev K.A. Popova, D.V. Shipika., A.A. Ostashko, D.V. Lyan, A.D. Bagoviev,
Country: Russian Federation
Email ID: ppvk@ya.ru

ABSTRACT

Objectives: The problem of complex rehabilitation of patients with TMJ pain dysfunction syndrome (TMJ PDS) has become widespread in dental practice over the past few decades. The pain syndrome associated with the pathology of the TMJ is one of the most common types of prosopalgia, and it is the pain that makes patients see a doctor and is the most common complaint. The most important role in the occurrence of the syndrome of pain dysfunction of the TMJ is given to discoordination of activity and violation of the tone of the masticatory muscles, which causes a change in the ratio of the elements of the articular structures, and also leads to inflammatory and degenerative changes in the joint. Nowadays, various methods have been proposed for influencing the muscle component in patients with TMJ pain dysfunction syndrome: using transcutaneous electrical nerve stimulation, splint therapy, pharmacotherapy, and botulinum toxin type A (BTA) injections into the masticatory muscles. However, despite the large number of clinical studies conducted, there is no single point of view about which of the methods is the most effective. The aim of our study is to improve treatment efficacy of patients with TMJ PDS and masticatory muscle hypertonicity.

Material and methods: The material of this study was the results of treatment of 20 patients with an established diagnosis of TMJ pain dysfunction syndrome. Patients were selected according to the following criteria: the presence of pain in the TMJ area, limited mouth opening, the presence of muscular dystonia according to the results of surface electromyography of the masticatory muscles. In the course of a complex treatment algorithm, injections of medical carbon dioxide were performed using the INCO2 device into the trigger points of the masticatory muscle group.

Results: After gas injections with medical carbon dioxide, an increase in the amplitude of mouth opening by 62% and a decrease in the intensity of pain syndrome by 87% were noted. Also, during the control electromyographic study, a decrease in the total bioelectrical activity of the masticatory muscles according to the IMPACT index by 67% was noted. Complications during this procedure were not identified.

Conclusion: The results of this study showed that the method of invasive carboxytherapy is a safe and effective method of treating myogenic group of patients with TMJ pain dysfunction syndrome and masticatory muscle hypertonicity.

BIOGRAPHY

Karina Popova is the post-graduate resident student of Department of Maxillofacial and Plastic Surgery of Moscow State University of Medicine and Dentistry named after A.I.Evdokimov

Presenter Name: Karina Popova.
Mode of Presentation: Oral.
Contact number: +79197700477