Effect of oculomotor exercises added to the treatment of temporomandibular dysfunction: case report

Efeito dos exercícios oculomotores adicionados ao tratamento de disfunção temporomandibular: relato de caso

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INTRODUCTION

Temporomandibular Dysfunction (TMD) is of multifactorial etiology, considered the most common chronic musculoskeletal cause of orofacial pain and with an estimated prevalence in the world population of approximately 31% in adults and the elderly and about 11% in children and adolescents1. Convergence insufficiency (CI) is characterized by the inability of the eyes to perform the adduction movement together, to focus on a nearby object2. The literature shows that there is anatomical and physiological evidence of a connection between the oculomotor apparatus and the stomatognathic system, and there are significant associations between convergence insufficiency, pain and severity of TMD2. The aim of the study was to identify the effects of oculomotor treatment added to TMD treatment on decreasing muscle pain, increasing mandibular range of motion and improving ocular convergence.

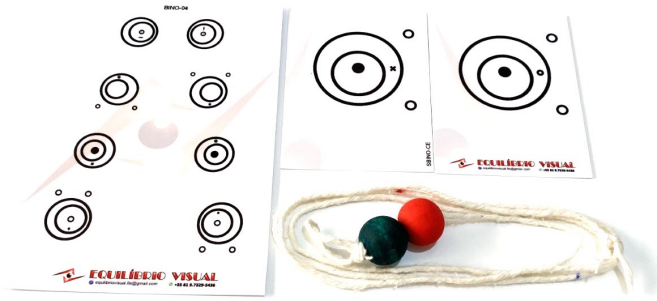
METHODOLOGY

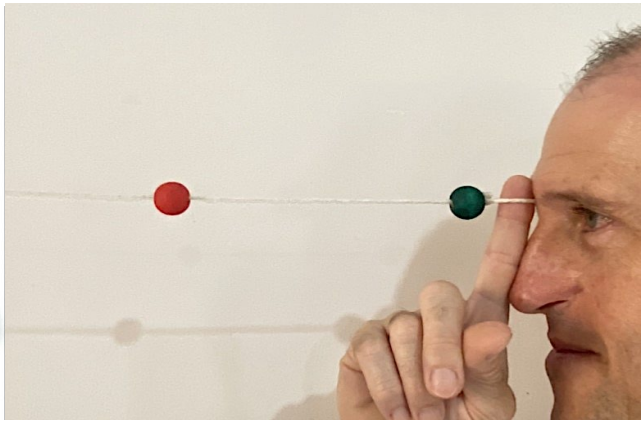
- Study approved by the Research Ethics Committee of Uninove (CAAE: 56799322.9.0000.5511). It is a case study, in which the patient was part of a pilot study for a randomized clinical trial.
- HNE patient, male, 19 years old, with mixed TMD, presenting pain in the masticatory muscles, convergence insufficiency.
- Initial evaluation using: Fonseca Anamnesis Index (FIA), which assesses the degree of severity of TMD; Diagnostic Criteria for Temporomandibular Disorders (DC/TMD), performs the diagnosis of TMD; Numerical Pain Scale (NDS) and the Convergence Insufficiency Symptom Survey (CISS), questionnaire for CI. After evaluation, 12 physiotherapy sessions were performed, 1x per week for 50 minutes each, containing manual techniques for TMD and oculomotor exercises[3,4]. The patient was reassessed shortly after the 12 treatment sessions.

Table 1 - Treatment Protocol

TERAPIA PARA DTM	TERAPIA OCULOMOTORA
Liberação Muscular Intraoral e Extraoral	Exercício com Cordão de Brock
Exercício de abertura de boca com a língua no palato	Exercício com Carta Salva Vidas
	Exercício com Círculos Excêntricos

Source: The Authors





RESULTS AND DISCUSSION

Immediately after completing all the consultations, the patient underwent a reassessment with the same instruments and it was observed that the pain intensity 7 went to zero in the NDT, that is, a clinically important decrease of 100%; in the initial evaluation of the DC/TMD the patient was diagnosed with mixed TMD and after treatment he was diagnosed without TMD, the opening of the mouth without pain went from 42mm to 45mm after treatment, that is, a clinically important increase of 3mm. The IAF had scored 55 (moderate severity) and after treatment it was zero and the CISS of 17 points went to 9 after treatment, that is, normal binocular vision.

CONCLUSION/FINAL CONSIDERATIONS

The patient no longer has pain, has gained mandibular range of motion and his convergence insufficiency has been corrected. Oculomotor therapy can positively interfere in the improvement of the clinical picture of temporomandibular dysfunction.

FINANCIAL SUPPORT

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