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Physiotherapy in case of trismus: A case study

Kaushik Guha and Dr. Subhrojyoti Bhowmick

Abstract

Trismus is a common complication, which usually occurs after extraction of tooth, trauma, dental or oral infections, after giving injections to gums, T.M.J dysfunction etc. Trismus leads to several difficulties to the patients, like inability to open jaw while eating food, speaking, yawning. The patient usually complains of pain & tenderness in the face, more in the area in front of the ear, increases while attempting to open the jaw, trying to eat food especially solid food. Physiotherapy plays an important role as a treatment of trismus. Different techniques like mobilization, soft tissue manipulation, U.S.T, I.F.T, E.S.W.T, Laser can be applied for treating this condition. Exercises like isometric exercises to the muscles of jaw increases the strength of weak muscles. This is a case study of a patient, who was suffering from trismus & pain following an injection after extraction of second molar of left side lower jaw. He was treated conservatively with physiotherapy.

Keywords: Case study, trismus, physiotherapy, Kaushik guha

Introduction

Case study

A 53 years old male patient came with complaint of difficulty in opening mouth especially while having food & pain in lower portion of left side of face after tooth extraction few days ago. He was referred to me by a dental surgeon for physiotherapy. During taking history the patient informed that after two or three days of receiving an injection in the gum near left side second molar of lower jaw, he started feeling pain. The area also swelled within few days. He reported to the doctor, who examined him, prescribed some medications & afterwards he referred the patient for physiotherapy.

On examination, the swelling of the area of face was reduced probably result of medicines. The patient had restrictions in mandibular depression (11 mm), protrusion (3 mm), lateral deviation (4 mm) & retrusion (1 mm). The pain was measured using V.A.S. It was 8. There was spasm of Pterygoids & Masseter muscles. Joint R.O.M of cervical spine was normal & the patient did not complaint of pain in the cervical spine in the past. Superficial sensation of face was tested & was normal. The patient was non-diabetic & non-hypertensive.



Fig 1: Day 1 (Mandibular depression-during examination)

After examinations, the patient was given U.S.T on the lower part of left side of face, Maitland's mobilization (Grade I & II initially & later grade III) & soft tissue release

techniques for Pterygoids & Masseter muscles for fifteen sittings in my clinic.

U.S.T was given daily once for 10 minutes in continuous mode with an intensity of 1 w/cm² using frequency of 1MHz [4, 5] Maitland's mobilization was given using grade I, II for pain relief & grade III for increase in R.O.M.

Grade I: A small-amplitude movement near the starting position of the range.

Grade II: A large-amplitude movement that carries well into the range. It can occupy any part of the range that is free of any stiffness or muscle spasm.

Grade III: Also a large-amplitude movement, but one that does move into stiffness or muscle spasm [6].

Caudal (Fig. 2), medial (Fig. 3) & lateral glides (Fig. 4) were used for this purpose [7].



Fig 2: Caudal glide



Fig 3: Medial glide



Fig 4: Lateral glide

Results

After 15 sittings of physiotherapy, the patient had no pain during chewing food & no difficulty of opening mouth. The level of pain was measured using V.A.S & it was 0. The R.O.M of T.M.J was also measured & there was significant improvement in R.O.M, mandibular depression (45 mm), protrusion (8 mm), lateral deviation (7 mm) & retrusion (3 mm).



Fig 5: Day 15 (Mandibular depression-post-treatment)

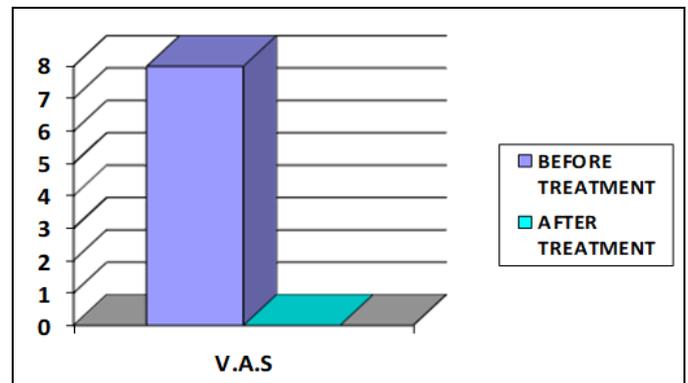


Fig 6: Graphs for comparison (Pre & post treatment)

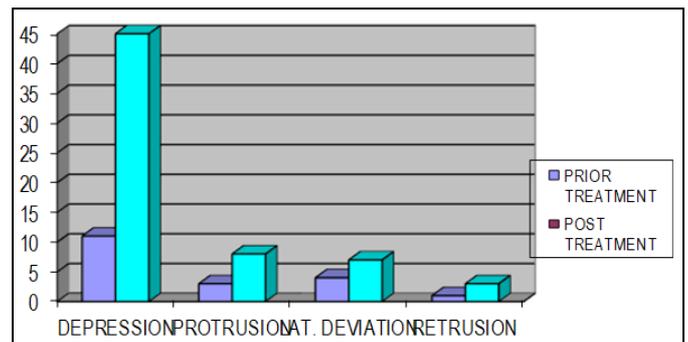


Fig 7: Movements of mandible

Discussion

Trismus is a condition where physiotherapy plays an important role. Assessment is the first thing should be done before intervention, because there are several causes of Trismus & signs & symptoms may vary from patient to patient. This case study is an attempt to discuss the role of mobilization & U.S.T in physiotherapy as treatment for Trismus. More studies are needed with large number of patients with different physiotherapy procedures to prove efficacy of physiotherapy in Trismus.

Conflict of interest: No.

Funding: Self

Ethical clearance: No. It is a case study only.

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