Resolution of Acute Episode of Chronic Temporomandibular Joint Dislocation Requires Multidisciplinary Approach

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BACKGROUND AND PURPOSE: Confusion exists regarding temporomandibular joint (TMJ) subluxations and true dislocation. Subluxation is a self-reducing, incomplete dislocation in which patients can close their mouth. True dislocation is when the mandibular condyle becomes displaced from the glenoid fossa and requires manipulation to return to position. Literature shows no standard method of treating chronic dislocations due to the rarity of chronic conditions. This presentation outlines the acute management of a patient with chronic atraumatic TMJ dislocations.

CASE DESCRIPTION: A 45-year-old woman with chronic atraumatic TMJ dislocations occurring 3 times per week. Prior level of functions able to talk/drink with low level pain; eating consisted of soft foods and shakes. Recent dislocation 2 days prior to evaluation which could not be self-reduced and required dental relocation. Initial evaluation of symptoms: 7/10 pain, inability to talk; communication was hand written to ensure understanding, inability to work, difficulty swallowing, could not chew. Prior treatment included bilateral arthrocentesis (needle inserted into joint, saline solution used to distend the joint to increase space and mobility) which were unsuccessful at reducing dislocation frequency. Exam findings: hypomobility: distraction, lateral gapping, right medial glide; hypermobility: left medial glide; anterior glide not assessed due to discomfort and apprehension. Tenderness: sternocleidomastoids, digastrics, TMJ, masseters, temporalis, lateral pterygoids. Range of motion: 31 mm opening, 5 mm left lateral deviation, 3 mm right lateral deviation, protrusion lacking 3 mm, 8 mm retrusion. Mandibular depression and lateral deviation were weak. Pain rating: 7/10 for best pain in last 24 hours and current pain, 9/10 for worst pain in last 24 hours. Patient Specific Functional Scale (PSFS, 0 unable to do to 10 perform at preinjury level): talking = 1, swallowing = 2, and chewing = 0; average, 1. Patient reported suicidal thoughts due to dislocations. Patient was seen for 22 visits over 15 weeks treatment included: Grade II joint mobilizations and soft tissue mobilization performed for relaxation/pain relief. Controlled opening and rhythmic stabilization exercises performed to reeducate and stabilize the joint. Referral to psychologist for her suicidal thoughts, and consultation with a nutritionist regarding her low caloric intake.

OUTCOMES: Patient returned to speaking, work, drinking, and eating soft foods. Discharge PSFS: talking = 10, swallowing = 8, and chewing = 1; average, 6.33. Current pain reduced to 2/10. Dislocation frequency reduced from 3 times per week to once in 6 weeks. Although physical therapy management returned her to baseline she was referred to an oral-facial surgeon for alternative options and possible surgical intervention to allow her to eat solid food and prevent future large-scale events.

DISCUSSION: This case describes a multidisciplinary approach in the acute management of chronic atraumatic TMJ dislocations.

REFERENCES: 1. Reneker J, Paz J, Petrosino C, Cook C. Diagnostic accuracy of clinical tests and signs of temporomandibular joint disorders: a systematic review of the literature. *J Orthop Sports Phys Ther.*2011;41:408–416. http://dx.doi.org/10.2519/jospt.2011.3644; 2. Nusrath MA, Adams JR, Farr DR, Bryant DG. TMJ dislocation. *Br Dent J.* 2008;204:170–171. http://dx.doi.org/10.1038/bdj.2008.112; 3. American Physical Therapy Association; Orthopaedic Section. The temporomandibular joint: physical therapy patient management utilizing current evidence. In: Ho S, ed. *Current Concepts of Orthopaedic Physical Therapy.*3rd ed. La Crosse, WI: Orthopaedic Section, APTA; 2011; 4. Kaltenborn FM. Manual *Mobilization of the Joints: Volume I, the Extremities.* 6th ed. Oslo, Norway: Norli; 2007; 5. Fernández-de-las-Peñas C, Dommerholt J. Myofascial trigger points: peripheral or central phenomenon? *Curr Rheumatol Rep.*2014;16:395. http://dx.doi.org/10.1007/s11926-013-0395-2