NOVEL INJECTION TECHNIQUE FOR CHEMODENERVATION OF SYMPTOMATIC CHRONIC MUSCLE SPASM

Introduction: Treatment of chronic muscle spasm with trigger point injections has typically sought to identify a focal trigger point for that muscle. Spontaneous Electrical Activity (SEA) often referred to as end plate noise has been found to be present at trigger points.

Objective: Develop an effective injection technique for symptomatic chronic muscle spasm using EMG guided chemodenervation agents.

Method: EMG guided interrogation was performed of symptomatic chronically spastic muscle. Chemodenervation was performed with dilute OnabotulinumtoxinA 100u/20ml or Phenoxybenzamine 0.25%/Lidocaine 1%. Injection only at the most active sites was found not to provide acute symptomatic relief. Patients were asked to perform movements that caused discomfort at various stages of the injection technique until symptomatic relief was obtained. Injection extending outward from the most active site until all adjacent muscle tissue demonstrating SEA was eliminated provided acute relief and was associated with prolonged relief. For relatively small segments of spastic muscle, redirection of the original needle puncture to cover 360 degree and at various depths and angles was adequate. However, additional skin punctures following the tract of the SEA were commonly required.

Results: Only complete resolution of SEA by EMG guided chemodenervation with various agents provided adequate acute and subsequent prolonged relief of symptomatic chronic muscle spasm.

Conclusion: Novel trigger point injection technique utilizing EMG guided chemodenervation was found to be superior to focal trigger point injection at the site of maximum SEA.

Coletti, R.H., Novel Injection Technique For Chemodenervation Of Symptomatic Chronic Muscle Spasm, Abstract in Muscle & Nerve, Volume 50, Issue 4, October 2014, pages: 626–719, Article first published online: 22 SEP 2014 | DOI: 10.1002/mus.24436

EMG Guided Chemodenervation Procedure of Acquired Chronic Muscle Spasm Designated as CMECD®

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Combined Results of Clinical Research
Diagnosis, Etiology and Treatment
Acquired Chronic Muscle Spasm and Secondary Chronic Pain

EMG Guided Chemodenervation
Treatment of Sciatica –2012

Novel Injection Technique for Chemodenervation of Symptomatic Chronic Muscle Spasm –2014

Needle Electromyographic Identification of Chronic Muscle Spasm -2016

Safety of Phenoxybenzamine Chemodenervation with Repeated Injections -2017

Debunking the Myth:
Denervated Muscle Is the Solitary Cause
Of Muscle Spontaneous Electrical Activity -2017

Successful Treatment of Longstanding Chronic Muscle Spasm with EMG Guided Chemodenervation -2017

Proposed New Diagnostic Entity of Acquired Chronic Muscle Spasm -2018

Limitations of EMG and Nerve Conduction Studies in Clinical Practice - 2017

EMG GUIDED CHEMODENERVATION PROCEDURE OF ACQUIRED CHRONIC MUSCLE SPASM DESIGNATED AS CMECD®

INTRODUCTION: Multiple prior abstract publications involving the novel procedure of needle EMG guided chemodenervation of chronic muscle spasm have been presented. Various details of the procedure were contained in each of these abstracts. However, sufficient information for undertaking this procedure was lacking. Clear designation of the described procedure was deemed necessary for physicians seeking complete procedural information with access to references and other supportive documentation.

OBJECTIVE: To make a clear and simple designation of this novel procedure to facilitate online search for procedural information and subsequent published research.

METHODS: A simple acronym, CMECD®, which represented "Coletti Method EMG Guided ChemoDenervation" was chosen and subsequently trademarked. Internet search under this acronym now readily identifies videos and the CMECD.info site holds all information presently compiled on this procedure. Trademark application was chosen to assure that there was consistency in the procedure if and when undertaken by various practitioners.

RESULTS: Online viewing of the procedural website, CMECD.info, is already allowing hundreds of views per month.

SUMMARY/CONCLUSION: This method of online presentation allows for dissemination of emerging medical treatments in a fashion more readily accessible to physicians and potential patients. Designation of a procedure with a readily searchable acronym, providing procedural, research, and outcome data should be considered a model for providing ready access to detailed information on emerging medical treatments.