Abstract #115

PROPOSED NEW DIAGNOSTIC ENTITY – ACQUIRED CHRONIC MUSCLE SPASM

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INTRODUCTION: Prior work by this author has demonstrated the ability to identify chronic muscle spasm by the EMG finding of spontaneous electrical activity(SEA). Moreover, it was shown that the presence of SEA was not solely the result of denervation of muscle but was present in muscle that had no evidence of denervation. It was further shown that treatment of muscles in chronic spasm without a neurogenic etiology can be successful treated by elimination of the SEA to allow the muscle to return to a normal physiologic state.

OBJECTIVE: To formulate a proper diagnosis and thereby allow for correct directed treatments for patients with clinical and EMG evidence of acquired chronic muscle spasm.

METHODS: To formulate a proper diagnosis and thereby allow for correct directed treatments for patients with clinical and EMG evidence of acquired chronic muscle spasm.

RESULTS: Acquired Chronic Muscle Spasm (ACMS) shall be considered to be present when the following conditions are met:
1. EMG tracing demonstrates chaotic SEA in muscles that are or should be at rest given proper body positioning.
2. SEA will not be abated by reciprocal inhibition by activation of competitive muscle groups.
3. No known neurogenic cause for the presence of SEA has been identified.
4. When physically accessible, muscle will demonstrate a resistance to compression and which will typically result in discomfort.

SUMMARY/CONCLUSION: The acceptance and utilization of the proposed new diagnostic entity of ACMS should allow for improved diagnosis of the etiology of chronic muscle spasm. This should allow alternative treatment of the resultant chronic pain.

Abstract #188

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

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INTRODUCTION: Multiple prior abstract publications involving the novel procedure of 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™, was chosen 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.

Abstract #192

LIMITATIONS OF EMG AND NERVE CONDUCTION STUDIES IN CLINICAL PRACTICE

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INTRODUCTION: Chronic pain and weakness are significant factors in the onset of disability. Complete EMG and nerve conduction studies are often required to identify the state of nerve function as it may relate the presenting symptoms. However, recent studies have shown that acquired chronic muscle spasm, identified with simple EMG sampling with the presence of Spontaneous Electrical Activity (SEA), is a common causes of both chronic pain and weakness. Current reporting techniques will typically indicate the presence or absence of SEA without indication of its functional significance.

OBJECTIVE: To expand current reporting techniques for EMG and nerve conduction studies to include precise location by muscle group of the presence and intensity of SEA.

METHODS: A severity scale of SEA and parameters for reporting is proposed. Several levels of activity are to be discriminated and given point values for any muscle showing or adjacent to muscles demonstrating SEA. Increased insertional activity is included as it has been seen in spasms of intermediate duration.

1. No SEA or increased insertional activity
2. Increased insertional activity whether or not it recurs on repeat insertion.
3. Low level SEA
4. Moderate SEA
5. High level SEA

Requirements for measurement of SEA require that reciprocal inhibition by contralateral muscle groups cannot be demonstrated and that the muscle should be in a natural state of relaxation based upon body habitus.

RESULTS: Outcome data and correlation with pathophysiology can then be determined.

SUMMARY/CONCLUSION: Proposed addition of SEA reporting should allow for improved assessment of presenting symptoms of chronic pain and weakness.