

with the thumb, index, and middle finger to carry out the next maneuver. As a word of caution, I recommend removal of the stylet prior to application of the proximal bend, and I do not recommend utilizing this technique with costly radiofrequency electrodes where the proximal bend may damage the equipment.

Cameron M. Govonlu, MD
Physicians Pain Management Center
302 Broadway #8
Raynham, MA 02767
E-mail:
dr.govonlu@pain-management-center.com

Effects of Weather Changes on a Patient with Reflex Sympathetic Dystrophy

TO THE EDITOR:

It is usually accepted that changes in barometric pressure can affect the pain level in a patient with reflex sympathetic dystrophy (RSD). It is frequently observed during flying where pressure changes occur during both ascent and/or descent. Other changes in weather conditions have been reported to cause headache, affect joint pain, and arthritis etc. (1-3). This report will describe the effects of rain and rain clouds on exacerbation of RSD.

D.L. developed RSD in her left lower extremity from a fall 12 years previously. She was diagnosed using a sympathetic block and has been treated by epidural injections, narcotics, and other "conventional" methods. Approximately 5 years ago she moved to the west coast of Florida. She noted that each summer, an exacerbation of symptoms occurred prior to the almost daily afternoon showers. She would experience typical RSD symptoms including aching and burning, prior to each rain shower. She also noted an increase in pain when the clouds accumulated during the afternoon. Invariably, the pain would ease during the showers. The pain was noted even when she was inside a building without windows and was unable to ascertain the weather conditions, which may or may not have resulted in rain.

A possible explanation for this could be because there is a polarization of positive and negative charges in a storm cloud. Positive charges are carried in the upper areas and negative charges gravitate toward the bottom of the cloud. The clouds electric field stretches through the space surrounding it and induces movement of electrons upon earth. Electrons on the ground

are repelled by the negative-charges on the bottom of the cloud creating a positive charge on the ground, the result of which is a buildup of static electricity. This buildup may affect the electric field altering nerve impulses. It has been reported that weak electric fields can induce electric fields and currents within the body (4). It is well established that the electrical excitability of neurons results from the presence of voltage-gated ion channels principally sodium, potassium, calcium, and chloride. Exchanges of these ions from the inside to the outside of the neuron resulting in nerve impulses have been readily demonstrated in vitro. Furthermore these effects may be more effective in the body than previously recognized (4).

In order to test this, the patient purchased a negative ion generator to counter the positive ions as explored above. She noted complete relief of pain when going into the room with the active ion generator. This could be replicated by walking in and out of that room. Unfortunately, this patient also had facioscapulohumeral muscular dystrophy (FSHD). Use of the negative ion generator had a negative effect on FSHD. Although her RSD pain was relieved, she became weak and lethargic possibly through the opening of calcium channels and flooding her muscle cells with calcium. We have reported on the negative effects of calcium and the positive effects of calcium channel blockers on this type of dystrophy (5). She previously had a treatment using electrical impulses in an attempt to reduce symptoms of RSD which also resulted in lethargy, weakness, and exacerbation of dystrophic symptoms. In summary, this report describes how changes in weather conditions can affect the course of chronic pain.

Stanley S. Lefkowitz, PhD
Affiliate Professor
Department of Molecular Medicine
University of South Florida College of Medicine
Tampa, FL 33612
E-mail slefkowi@tampabay.rr.com

Susanti K. Chowdhury, MD, PA
Advanced Pain Management Consultants
10225 Ulmerton Rd. Suite 1B
Largo, FL 33771

Doris L. Lefkowitz, PhD
Affiliate Associate Professor
Department of Molecular Medicine
University of South Florida College of Medicine
Tampa, FL 33612

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