



Western Surgical Association 2020 Annual Meeting

Monday, November 9, 2020
4:00pm – 6:15pm Pacific Time
– Virtual Meeting --

www.westernsurg.org | wsa@p-etc.com | 913.402.7102

10. DIRECTED CUTANEOUS NEURECTOMY FOR REFRACTORY POST-TRAUMATIC AND POSTOPERATIVE PAIN

Presenter: Charles Lucas MD | Wayne State University School of Medicine, Detroit Medical Center
CE Lucas, AM Ledgerwood

Background: The current recommendations for the treatment of refractory post-surgical and post-traumatic cutaneous neuralgia (CN) include proximal truncal neurectomy with or without mesh removal. A prior preliminary report suggested that directed cutaneous neurectomy (DCN) without truncal neurectomy or mesh removal gave excellent results. These observations led to a creation of a prospective DCN registry to further evaluate this approach.

Methods: During ten years, ending March 2020, DCN was performed 84 times in 76 pts not previously reported. Criteria for DCN included complete temporary relief of CN by percutaneous anesthetic blockade performed proximal to the refractory pain. Patients having complete relief of pain were scheduled for DNC, at which time the same blockade was performed with blue dye added to the injectate. Following complete relief of pain, a small incision was made, and all of the blue-stained tissue was excised. The DNC was performed in the groin (34 pts), mid-abdomen (35 pts), or following trauma with fracture of ribs (9 pts), long-bone (4pts), or cranium (2 pts). Mesh was present in 32 pts. Relief was judged to be permanent (P), none (N), or temporary (T). None of the pts had truncal neurectomy or mesh removal.

Results: Pain was deemed P in 65 pts (61±14 mo), N in 7 pts, and T in 12 pts (18±20 mo); 7 of the 12 pts with T relief had a second resection resulting in P relief in 5 pts. Wound healing was normal (69 pts), had seroma (13 pts), or superficial infection (2 pts). Tiny nerve fibers were seen microscopically in 47 pts; there was no correlation with presence of microscopic nerve fibers and results. Reasons for N relief were unknown (3 pts), due to pre-blockade analgesia (2 pts), followed radiation neuritis (1 pt), and poor post-blockade patient-physician communication (1 pt).

Conclusion: Refractory CN is caused by small cutaneous nerve fibers. DCN, by removing only small cutaneous fibers that enervate the skin, yields better results than blind total proximal truncal neurectomy for postoperative and post-traumatic refractory CN. Proximal truncal neurectomy and excision of associated mesh are technically more difficult and unnecessary.