Botulinum toxin - A and Dexamethasone in chronic scar pain: a cross-over study

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Objective: To test the hypothesis that Botulinum toxin - A (BTX-A) is as effective as Dexamethasone in relieving chronic post-surgical scar pain.

Design: Randomized, single blinded cross-over trial.

Participants: Five subjects with chronic severe neck or facial surgical scar pain for greater than 1 year duration (range 1 year to 9 years).

Intervention(s): Each subject was injected intradermally in a single blinded fashion with either dexamethasone (4 mg/ml) at 0.5 mg. per centimeter of scar or Botulinum toxin-A, (5 units per 0.1 ml of normal saline) at 2.5 units per centimeter of scar. At 12 weeks subjects were crossed over and injected with the other agent.

Main Outcome Measure(s): Outcome was assessed using an 11 point visual analogue scale for pain (0 for “no pain” and 10 for the “worst pain ever”). Data was collected every 2 weeks over a 24 week period.

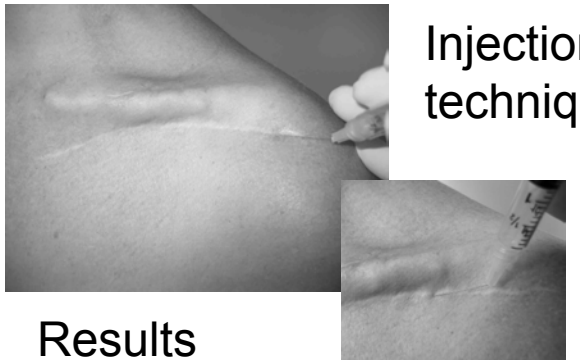
Results: Both forms of therapy demonstrated a reduction in pain. No statistics were done due to the small N. There was a trend to a slightly more profound reduction in mean pain scores with BTX-A (30% versus 25% for Dexamethasone), however, the duration of pain reduction with BTX-A lasted twice as long (8 weeks versus 4 weeks for Dexamethasone).

Conclusion(s):
These limited results suggest that further investigation into the use of BTX-A for the management of chronic neuropathic scar pain is warranted. BTX-A use in this application as an alternative to steroid therapy eliminates the concern of systemic absorption of steroid with consequent adrenal suppression as well as thinning of the skin around the scar tissue after repetitive doses.

Subjects

Subject	M/F	Age	Duration
1	M	42	9yrs
2	F	36	5yrs
3	F	56	7yrs
4	F	29	1yr
5	M	38	3yrs

Injection technique



Results