Preliminary results of allograft amniotic tissue barrier used in peripheral nerve revision and secondary neurolysis

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Objective

- To evaluate the safety and efficacy of neurolysis with allograft amniotic membrane wrapping for treatment of patients with recurrent or secondary peripheral neuropathy.

Methods

- Retrospective review of patients who underwent neurolysis with placement of an amniotic membrane allograft wrap (*XWrap, Applied Biologics, LLC, Scottsdale, AZ*) for treatment of recurrent or secondary peripheral neuropathy
- All surgeries performed by senior author (M.S.R.) from December 2012 through July 2013.
- Data queried: Demographics, surgical and other prior treatment history, clinical exam values
- Secondary outcomes: complications, additional surgery
- Surgical technique performed as standard revision neurolysis; when affected nerve is adequately decompressed, allograft membrane is loosely sutured in place with 8-0 nylon sutures, and standard closure follows.

Conclusions

- The use of amniotic membrane allograft as an adhesion barrier in the setting of revision neurolysis was found to be safe and effective in this small series of patients.
- Further study is warranted to investigate its efficacy in prevention of perineural scarring in larger cohorts of patients, as well as for comparison to methods utilizing alternative allogeneic and autogenous adhesion barriers.