



Successful Treatment of Steroid Resistant Acute Rejection of a Unilateral Hand Transplant with Thymoglobulin

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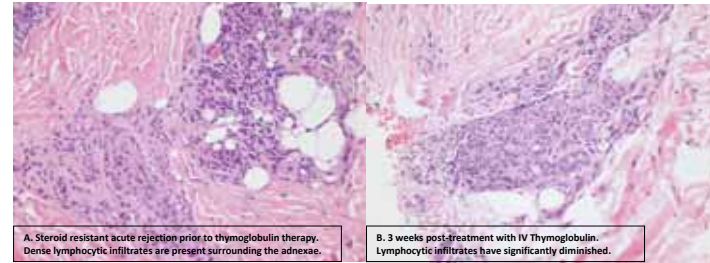


Introduction: Hand Transplantation is becoming more common-place and as patients and follow-up accumulate, so do experiences treating acute rejection. We report a case of acute rejection on single drug immunosuppression following a period of non-compliance which was resistant to intravenous steroid boluses approximately 2 years after transplantation. He displayed clinical signs of continued inflammation consisting of edema and erythematous maculopapular cutaneous lesions. Skin biopsies revealed moderate to high grade acute cellular rejection and adnexal loss with deep microangiopathic vessel changes despite normal radial and ulnar artery surveillance by high resolution ultrasound.

Methods: The patient was admitted and underwent 1.5 mg/kg/day thymoglobulin infusion x 4 days. He was monitored closely for signs of infection and complications such as "cytokine storm". His transplanted hand was also monitored for signs of clinical improvement. Cutaneous biopsies were repeated beginning 3 weeks following treatment.

Results: Following treatment with 4 days of thymoglobulin infusion, his graft demonstrated diminished edema, evolution of skin lesions from erythematous to brown macules which continued to fade, and resumption of hair growth, which had been lost, improved. Graft stiffness improved but did not resolve. Chronic changes such as decreased number of adnexal structures were unchanged but inflammatory infiltrates were diminished at the adnexae and throughout the biopsy specimen. C4d stains decreased to previous background levels.

Summary: Episodes of rejection have occurred in almost all hand transplant patients reported to date. Steroid resistant rejection is less common and requires careful consideration of multiple options and may be successfully treated with pulsed thymoglobulin therapy.



A. Steroid resistant acute rejection prior to thymoglobulin therapy. Dense lymphocytic infiltrates are present surrounding the adnexae.

B. 3 weeks post-treatment with IV Thymoglobulin. Lymphocytic infiltrates have significantly diminished.



A - B: Rejection at start of thymoglobulin treatment
C: 3 weeks post-thymoglobulin treatment

