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Periocular Non-Tuberculous Mycobacterium Infection after Combination Autologous Fat Transfer with Subdermal Micro-Needling and Fractional Radiofrequency Skin Resurfacing

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Introduction: This case details *Mycobacterium chelonae* infection after combination facial autologous fat transfer with subdermal microneedling and fractional radiofrequency skin resurfacing successfully treated with novel tedizolid therapy.

Methods: Case report, collection and evaluation of protected patient health information were HIPPA compliant.

Results: A 59-year-old woman presented from an outside facility three weeks after bilateral lower eyelid autologous fat transfer, subdermal micro-needling and fractional radiofrequency skin resurfacing. Two weeks after surgery, she developed unilateral left-sided swelling and a small erythematous nodule. After failing outpatient antibiotic therapy with clindamycin and trimethoprim-sulfamethoxazole, she presented to the emergency room for imaging and intravenous antibiotics for pre-septal cellulitis. Maxillofacial computerized tomography with contrast demonstrated left preseptal cellulitis without frank abscess. After poor response to intravenous vancomycin and ampicillin/sulbactam, her wound was cultured in an area of fluctuance and revealed *Mycobacterium chelonae*. She was transitioned to an outpatient regimen of clarithromycin and tedizolid for a total of 4 months with resolution of her infection (Figure 1). No recurrence has been detected 3 months after discontinuation.

Conclusions: This case highlights the need for vigilance and a broad differential in delayed post-operative wound infections including non-tuberculous mycobacterium infections. Additional caution may need to be exercised when performing combination autologous fat transfers with subdermal micro-needling procedures. When encountered, *Mycobacterium chelonae* infections may respond well to prolonged combination therapy with oral clarithromycin and tedizolid.

Figure 1



Figure 1. Treatment of left-sided *Mycobacterium chelonae* infection with clarithromycin and tedizolid at A) pre-initiation, B) one month of treatment, C) completion of four-month course.

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