

## Atypical infections a sequelae to cosmetic botulinum toxin procedures

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### Abstract

**Statement of the Problem:** The incidence of cutaneous non-tuberculous mycobacterial infections is rising, possibly as a result of an increase in the number of cosmetic procedures being performed. *Mycobacterium immunogenum* is a non-tuberculous mycobacterium, first described in 2001. It is a rapidly growing mycobacterium, genetically related to *Mycobacterium abscessus* and *Mycobacterium chelonae* which are more commonly identified species of infection. Nevertheless, there are still only a few cases of cutaneous *Mycobacterium immunogenum* infections reported in the literature.

**Findings:** *Mycobacterium immunogenum* has been isolated in metal working fluid and associated with hypersensitivity pneumonitis in industrial metal grinding machinists. *M. immunogenum* has also been associated with cases of keratitis, peritoneal dialysis catheter site infection, intravenous catheter infections, pacemaker related sepsis, septic joint and chronic pneumonia. Interestingly, a recent case report found a case of mycobacterium immunogenum infection following an injection of botulinum toxin (Botox) was reported. This patient was an otherwise well 34-year-old woman presented with a tender, erythematous nodule over the left mandible, three and a half months after receiving Botox injection into her masseters for teeth grinding. *Mycobacterium immunogenum* was isolated from the aspirate culture.

**Conclusion & significance:** There are only a few cases of cutaneous *M. immunogenum* infections reported in the literature. Cutaneous infections have been reported to follow tattooing, shaving, mesotherapy and excision of skin lesion. These infections may have occurred because of inadequate sterilization processes, or contamination of Botox needles, dissolving water or antiseptics. Although there is no standard therapy, prolonged antibiotic therapy (several months) is usually required, with clarithromycin being the most common agent used. Clinicians should suspect atypical mycobacterial infections in patients with inflammatory lesions following cosmetic procedures particularly when there is little response to conventional antibacterial therapy. Culture of fluid aspirate, and possible biopsy for histopathology and culture may be required to make the diagnosis.

### Biography

Janice Yeon is the Dermatology Research Fellow at the "The Skin Hospital", Sydney Australia. She graduated with a Bachelor Medicine and a Bachelor of Surgery (MBBS), Bachelor Sciences (Medical Sciences) and Master of International Public Health. Dr Yeon the acting sub-investigator across numerous dermatological clinical trials. These trials have included atopic dermatitis, vitiligo, epidermolysis bullosa, chronic plaque psoriasis, alopecia areata. Her extensive experience in conducting clinical trials places her at the forefront of dermatological research. Her current research interests include vulval dermatosis and special interests lie in the international public health and currently working with Pacific Dermatology an Australian not-for-profit organisation which support the education of skin specialist doctors in the South Pacific.

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