# A Challenging Case of Actinomyces Syndrome in a Patient with Free Flap Reconstruction of a Mastoid Defect

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## **Background:**

In chronic, non-healing wounds with no response to multiple antibiotic therapies, Actinomyces Syndrome must be considered. This condition needs a high index of clinical suspicion and special cultures for diagnosis. Patients require long term antibiotic therapy, sometimes upto over a year. This is especially important prior to the planning of any surgical procedures, in our case, a free flap reconstruction.

#### Case:

A 38-year old female referred to Plastic Surgery having undergone multiple excisions of recurrent cholesteatomas presented with a chronically discharging sinus and a mastoid cavity. Previous local flap options having failed, she underwent a joint procedure with ENT to excise the sinus and a free Anterolateral thigh flap to reconstruct the defect. Postoperatively, she developed purulent discharge around the flap and diagnosed as Actinomyces Syndrome, requiring 18 months of antibiotic therapy post operatively.

### **Discussion:**

A pre-operative diagnosis of Actinomyces Syndrome would have resulted in the deferment of free flap reconstruction of the defect until long-term antibiotic therapy was complete.

#### **Conclusion:**

In the setting of chronic, non-healing, problematic wounds that fail to respond to multiple antibiotic therapies, Actinomyces must be kept high in the differentials list and treated accordingly with long-term antibiotics prior to any surgical reconstructive procedures.