**Botryomycosis**

**Patient:** A 15-year-old boy  
**Duration:** Four months  
**Distribution:** Right temporal area

**History:** Lesions at site of penetrating trauma sustained five years ago.

**Physical Exam:** 4 x 4 cm and 3 x 3 cm oozy erythematous soft compressible ulcerated nodular lesions

**Histopathology:** Arising from an ulcerated epidermis are fragments of connective tissue with abundant granulation tissue and acute inflammation with scattered round cell infiltrate. Within these fragments are multiple basophilic granules of variable sizes and peripheral radiation. Special stains reveal the granules to be gram positive, methenamine silver positive, acid-fast negative, and PAS negative.

**Laboratory:** Tissue culture: *staphylococcus aureus*, heavy growth.

**Discussion:**
- Botryomycosis is a rare, chronic, suppurative, granulomatous bacterial infection where organisms form granules composed of bacterial masses (sulfur granules).
- The condition usually affects the skin but viscera can also be involved. It is caused by bacteria with *staphylococcus aureus* usually the major causal agent (40%) and *pseudomonas aeruginosa* ranking second (20%). Others include coagulase-negative staph, *micrococcus pyogenes*, *streptococcus secies*, *E. coli* and *proteus* species.
- Major associated predisposing factors include skin trauma, postoperative complications, diabetes mellitus, liver disorders, treatment with steroids, alcoholism, and cystic fibrosis. However it can occur in apparently healthy individuals.
- The lesions usually occur on the extremities, the head, neck, cheeks and buttocks are less affected. Most cases present with nodules, sinuses, fistulae, abscesses, and ulcers with seropurulent secretions in which granules can be observed macroscopically. The process may involve muscles and bone.

**References:**