

To the Editors:

Cervico-facial actinomycosis

A 24-year old man was admitted to Teaching Hospital Colombo South with a history of a slowly progressive swelling in the right submandibular region and trismus of two months duration (Figure 1). Examination showed a firm localised indurated swelling in the right submandibular region. The lower first molar tooth on the same side showed periodontal sepsis.

Soon after admission the abscess ruptured spontaneously exuding a purulent discharge. Incision and drainage of the abscess with extraction of the tooth was performed with the patient under antibiotic cover (cefuroxime and metronidazole). In spite of these measures, rapid progression of swelling, worsening of trismus, superficial skin necrosis and dysphagia warranted immediate further surgical intervention. Incision and drainage was carried out in several tissue spaces. Multiple discharging sinuses were observed in the muscle layers.

A drop of pus on a glass slide examined by a hand lens showed creamy granules. Microscopic examination of a saline mount showed long branching filaments and large number of pus cells and red cells.

Gram stain of a smear showed clusters of Gram positive branching bacilli with a granular appearance which appeared to disintegrate to yield coccal and bacillary forms (Figure 2). The macroscopic and microscopic appearance of the pus was suggestive of *Actinomyces israeli*.

Anaerobic culture of the pus sample performed on blood agar and brucella blood agar, and identification of the isolate by a rapid identification method using Rapid ANA II panels (Innovative Diagnostic System Inc. USA) identified the isolate as *Actinomyces israeli*. Based on these findings, treatment was changed to penicillin, 2 million units 6 hourly intravenously, to which the patient responded rapidly.



Figure 1. Swelling on the right side of the lower jaw and neck, with discharging sinuses and ulcer.

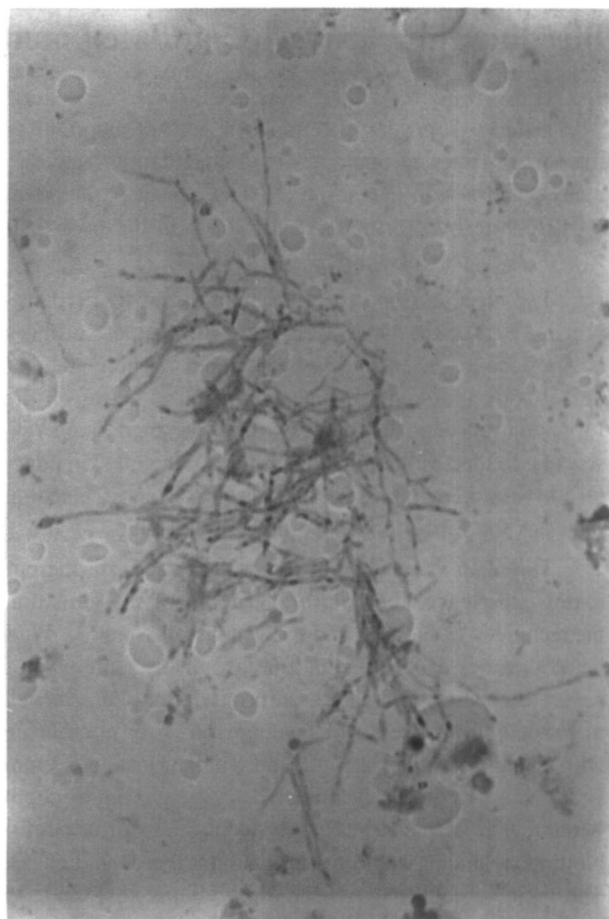


Figure 2. Direct smear of pus showing Gram positive branching filaments.

Actinomycosis is a chronic suppurative infection noted for forming external sinuses that discharge characteristic "sulphur" granules and spread unimpeded by anatomic barriers. The main causative agent of actinomycosis in humans is *Actinomyces israeli* (1).

References

1. Lerner Philip I. Actinomyces species. In: Mendell GL, Douglas RG, Bennet JE, eds. Principles and Practice of Infectious Disease. 3rd edition. London: Churchill Livingstone, 1933.

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