Abstract
Cervicofacial actinomycosis is today a rare disease in our country. Isolated neck swelling due to actinomycosis is extremely rare. A case of 52 year old man with an isolated neck swelling due to actinomycosis without any discharging sinus is reported here.

Introduction
Cervicofacial actinomycosis is usually associated with infection due to pseudofungus Actinomyces israelii. This is a gram positive, non-acid fast, anaerobic organism, which typically produces small yellowish sulphur granules. Rarely other species like A. naeslundii, A. viscosus, A. odontolyticus and A. propionica are implicated. All these are harmless commensals of the oral cavity and do not exist anywhere else in nature. Secondary to mucosal trauma or dental caries, they penetrate soft tissues of the face and neck. The spread is usually by contiguity through the soft tissue rather than by the hematogenous or lymphatic route. Sometimes a probable lymphatic spread results in isolated neck mass, which may be confused with malignant or infective cervical lymphadenopathy because of similar characteristics. The picture is further confused because of the absence of antecedent history of oral trauma or pathology (except poor oral hygiene) nor sinuses with discharging granules, as in the following case report.

Case Report
A 52 year old cook living in Muscat, chronic smoker with diabetes, hypertension and coronary artery disease presented with slowly increasing swelling in right upper cervical region of 20 days duration. After 10 days he had low grade intermittent fever with productive cough. There was no history of exposure to tuberculous infection in the past. He had no joint pain, rash, weight loss or exposure to pets. He had neither taken any drug like phenytoin nor had any drug allergy.

On examination, his vitals were normal except high blood pressure (150/90 mm Hg). A swelling of size 3 x 2 cm, which was non-tender, firm to hard in consistency, not fixed to underlying structures, was palpated in right sided of neck in upper cervical region. Skin overlying the swelling was normal. No other swelling palpable. Clubbing of fingers was present. He had no icterus, pallor, cyanosis, lymphadenopathy or edema. Oral hygiene was poor. Systemic examination was normal.

On investigation, neutrophilic leucocytosis with high ESR was present. His ELISA for HIV, Mantoux test were also negative.
Fasting and post-prandial Blood glucose levels were within normal limits, but HbA1C was 8.5.
Chest X-ray was normal (No parenchymal lesion nor any hilar lymphadenopathy)
His blood culture was sterile. Sputum gram stain, culture, did not revealed any organism. Sputum AFB by smear was negative. FNAC of the swelling showed necrotic material only.
He was treated with inj. amoxicillin and clavulanic acid. Blood glucose level was controlled with regular insulin. His fever and cough subsided and the swelling partially reduced in size and hence he was discharged.
After one month he came for follow up with persistent swelling in neck without fever or cough.
As the swelling was persistent, an excision biopsy was taken (Figure 1). Excision biopsy revealed bacterial colony surrounded by inflammatory cell (sulphur granules) suggestive of actinomycosis (Figure 2 and 3). Dental evaluation revealed mild caries of the molars.
He was treated with inj. crystalline, penicillin x 2 weeks. His swelling reduced in size so he was discharged after 2 week stay in hospital and advised to continue. Inj crystalline...
penicillin 20 lakh unit 6th hourly for 2 more weeks and review after 2 weeks. Patient came for follow up after one month. On follow up his swelling subsided completely and he was afebrile and symptomatically better. No respiratory symptoms or signs were present. He was advised to control blood sugar and good oral hygiene. Subsequently he went to Gulf and joined his job.

Discussion

Cervicofacial actinomycosis is commonest form comprising 50-60% cases of actinomycosis followed by abdominopelvic in 20% and thoracic actinomycosis in 15% cases. Antecedent oral problems like dental caries, periodontitis, apical abscesses, gingivitis, dental manipulation, oral trauma predispose to actinomycosis, in 40% cases it may not be present. The organisms customarily spread by direct extension into the soft tissues rather than lymphatic or hematogenous spread. Lymph nodes are involved only if they are in the pathway of the extending, burrowing disease. Pain and fever are predominant symptoms only in 80% of cases. Isolated swelling in the cervical region as in the above case are rarely documented and suggest lymphatic spread. These lesions partially respond to cephalosporin, partially regress and reappear when antibiotics are stopped. The differential diagnosis of such masses includes benign or malignant neoplasm, chronic abscesses, Tuberculous lymphadenitis and chronic fungal infections. Isolated Actinomycotic granuloma are also be seen in the tongue, larynx, lacrimal glands, scalp and paranasal sinuses. Fine needle aspiration cytology is not useful since it shows only inflammatory cells and necrotic material as in our case. Rarely, it may pick up the fungal granule. Excision Biopsy with microscopic examination and culture is the mainstay of diagnosis, especially to identify the precise organism.

The use of antibiotics has made a dramatic change in the response rates in Cervicofacial actinomycosis. Crystalline penicillin still remains the drug of choice. Doxycycline, minocycline, clindamycin erythromycin are other effective drugs. In case of allergy to penicillin doxycycline is the best alternative.

Indications for surgery include diagnostic biopsy especially in isolated masses, resistant fibrotic or necrotic disease and devitalised bony sequester.

Our case highlights the typical presentation of actinomycotic swelling and the importance of excision biopsy in the diagnosis of neck swellings.

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