

A rarest case of Actinomycosis induced Pericardial & Pleural effusion.

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Background-

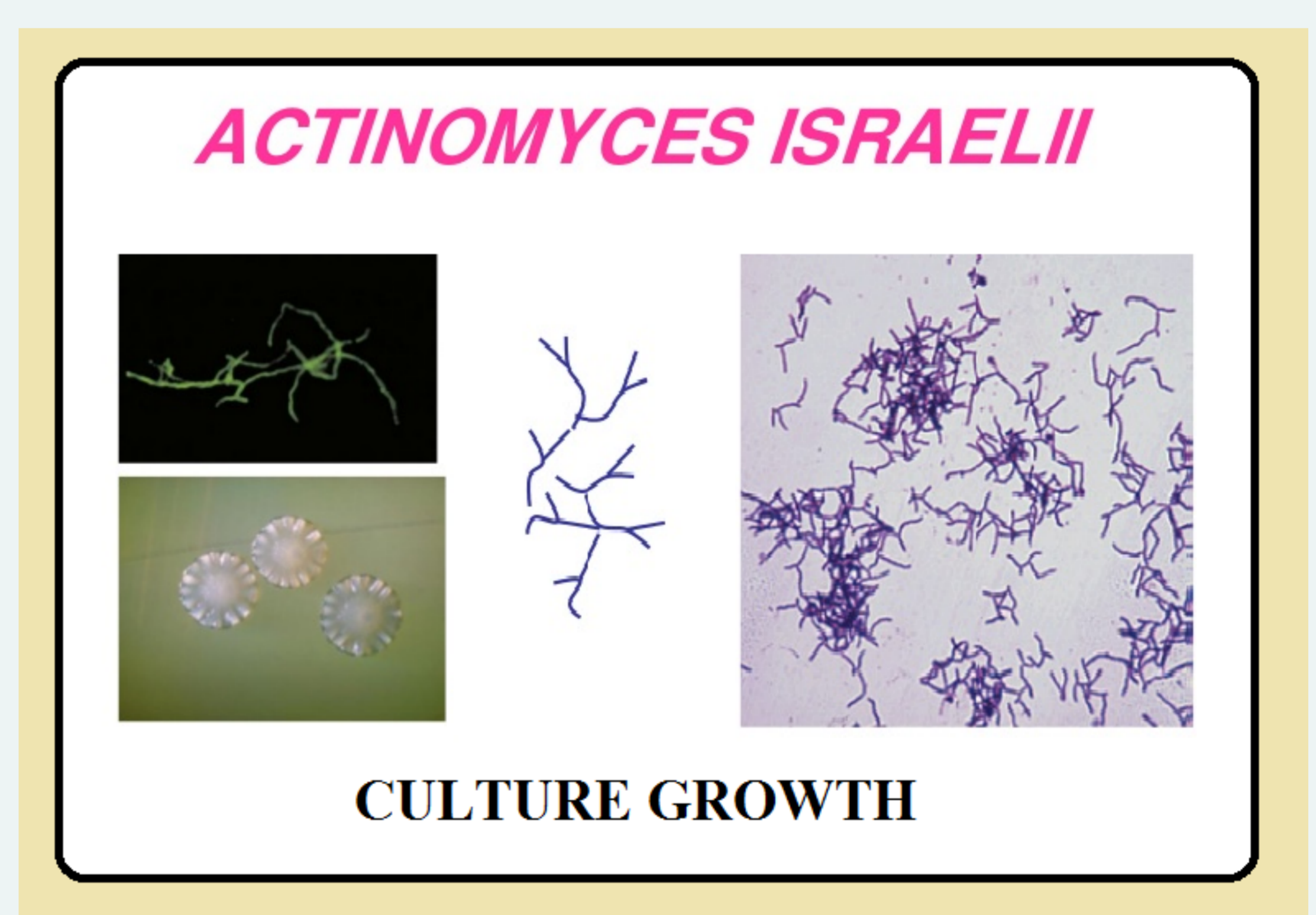
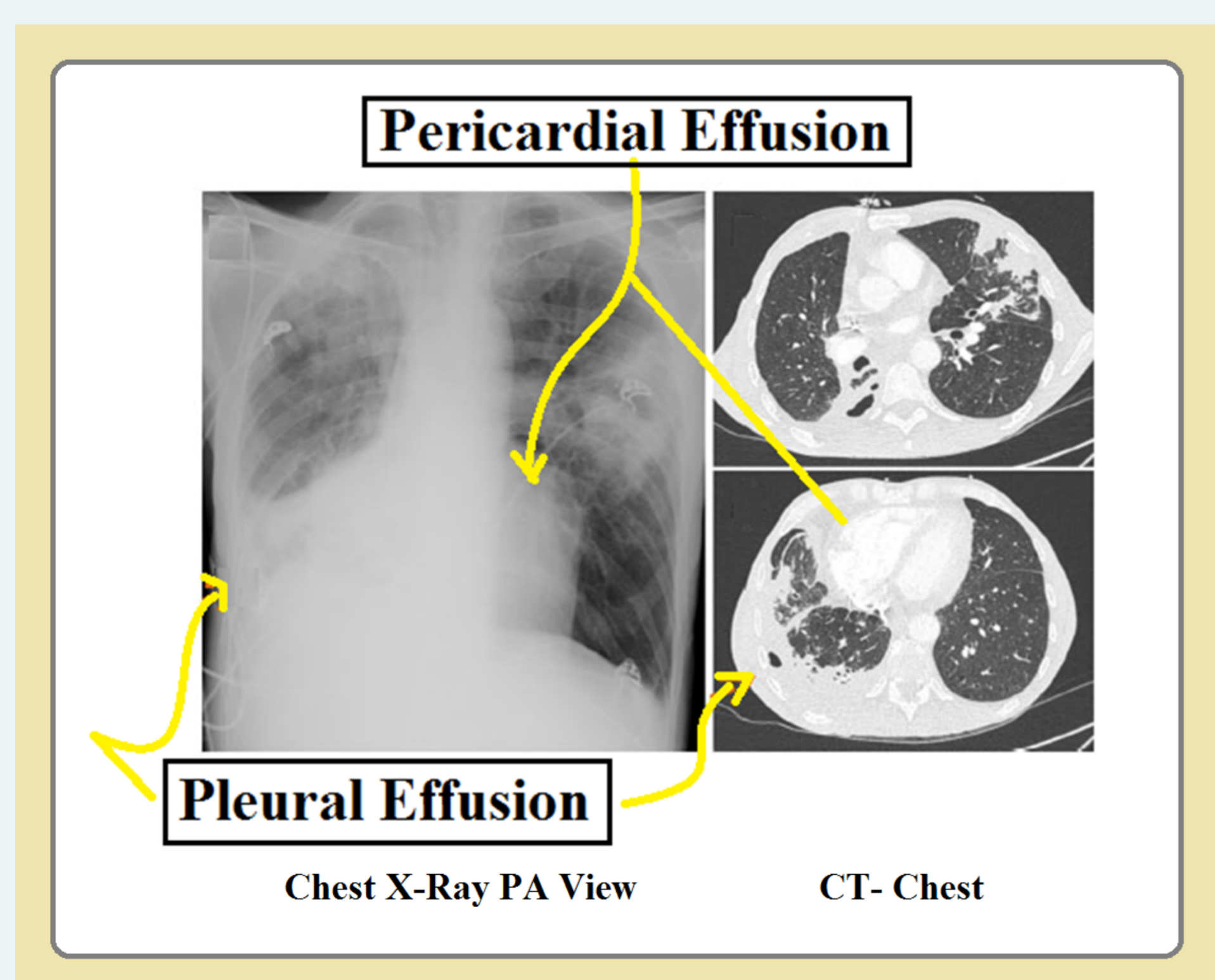
Actinomycosis is a uncommon disease caused by *Actinomyces* spp., Gram-positive, anaerobic or microaerobic bacteria that normally colonize the human mouth and GIT and genital tracts. It represent such as cervicofacial actinomycosis following dental focus of infection, pelvic actinomycosis in women with an intrauterine device, and rarely cardio-pulmonary actinomycosis in smokers with poor dental hygiene may mimic as tuberculosis, fungal infection and malignancy.

Method-

Bacterial cultures and pathology are the diagnostic tools, but particular conditions are required in order to get the correct diagnosis. Prolonged bacterial cultures in anaerobic conditions are necessary to identify the bacterium and typical microscopic findings include necrosis with yellowish sulfur granules and filamentous Gram-positive fungal-like pathogens.

Result (clinical case)-

27 years old male normotensive and euglycemic, smoker with poor oral hygiene presented with right lower chest pain with shortness of breath and low grade fever last 6 days. On examination dental caries , right chest bulging with diminished breath sounds, raised WBC counts, normal ECG, Chest X-Ray showed right sided pleural effusion and bilateral opacity & pericardial effusion which were confirmed by 2D echo and CT chest. Initially he was suspected as tubercular or malignant lesion based on tapped pleural fluid but he was ruled out for same due to normal range of ADA, ADA-2 and gama-interferon value or cytology. Finally he was diagnosed as an actinomycosis israelii on based of culture. As per antibiotic sensitivity he was treated with imipenem plus cilastin intravenously for 2 wks with support of pericardial and pleural drain followed by oral amoxicilin-clav for 3 wks and other supportives. No surgical interventions were required. After 5 wks follow-up he became asymptomatic and recover clinically and radiologically.



Conclusion-

Patients with actinomycosis require prolonged high doses of penicillin G or amoxicillin and other sensitive antibiotics. In developing countries physician should consider the rarest possibility of cardiopulmonary actinomycosis in difficult to treat pneumonitis and pericardio-pleural effusion. Early diagnosis will reduce the hospital stay or mortality in such kind of patients.