A 64-year-old caucasian man presented with a two month history of left-sided chest pain. The patient was evaluated at that time with a normal electrocardiogram, echocardiogram, and stress treadmill. Three months later the patient noted the new onset of painful clubbing of the fingers and toes (Fig 1) along with gynecomastia (Fig 2). The patient denied fever, chills, weight loss, productive sputum, or hemoptysis.

What is the diagnosis?
   a) Hereditary clubbing
   b) Hypertrophic osteoarthropathy
   c) Congenital heart disease
   d) Pancoast tumor
   e) Acromegaly

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Answer: The diagnosis is (b), Hypertrophic osteoarthopathy

This 64-year-old man with a 50 pack-year history of smoking was admitted for the evaluation of new onset clubbing and gynecomastia. Admission chest x-ray examination revealed a 3 cm nodule in his left upper lung (Fig 3). Transtracheal biopsy of a lymph node demonstrated a moderately differentiated adenocarcinoma.

Hypertrophic osteoarthropathy may be a cutaneous sign of internal malignancy. It is most commonly seen in association with bronchogenic carcinoma, but it has also been reported in mesotheliomas and metastatic cancer to the thorax. Hypertrophic osteoarthropathy is characterized by periosteal reactions of bone with associated clubbing of the digits. This patient also developed gynecomastia which has been noted in other patients with hypertrophic osteoarthropathy and lung cancer.

Hereditary clubbing is an isolated finding and is usually present shortly after birth. It is inherited as an autosomal dominant trait with variable penetrance. It is more common in males than females. This patient had no family history of clubbing.

Hypertrophic Osteoarthropathy is extremely rare in cyanotic congenital heart disease. Hypoxemia has not been shown to cause gynecomastia.

Pancoast tumors may cause unilateral clubbing when they infiltrate peripheral nerves. Decreased sympathetic vasoconstrictor tone may be the physiologic mechanism. Metastatic tumors from the thorax to the anterior pituitary gland can mimic acromegaly. However this patient had clubbing of fingers and toes without progressive enlargement of hand and feet. No other clinical stigmata of acromegaly were seen in this patient.

References