SYSTEMIC TALCOSIS SECONDARY TO INTRAVENOUS ABUSE OF ORAL MORPHINE TABLETS

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INTRODUCTION: Talcosis or talc pneumoconiosis a rare condition as a result of intravenous injection of oral medications. 1,2 Because most tablets contain talc, which is used to hold the components of the medication together in tablet form, this practice can cause arterial obstruction by the foreign material. When these talc-containing drugs are injected into blood vessels rather than swallowed, foreign-body granulomatous reactions occur, especially in pulmonary tissue, but also described in heart and kidney.[6]

CASE REPORT: A 35-year-old man presented months before with progressive dyspnea, fatigue, intermittent fever and weight loss of 30 pounds. He had a productive cough, hepatosplenomegaly, anasarca, nephrotic proteinuria, and intermittent macroscopic hematuria. In his past medical history a fracture in a lumbar spine with multiple surgical interventions and active smoking. He also consumed over the counter analgesics as needed for chronic pain. He was diagnosed with heart failure caused by nonischemic dilated cardiomyopathy. His serum creatinine was 2,4mg/dL and the proteinuria/creatininuria index 3. Thorax high-resolution computed tomography showed diffuse bilateral nodules and lung fibrosis and bronchoscopy prominent non-necrotizing granulomas. Renal, cardiac and pulmonary biopsies showed multinucleated giant cell reaction with birefringent foreign material in a perivascular distribution. (fig 1) . Based on these findings, the patient was asked and admitted the self-injection of crushed morphine tablets in the last 2 years.

DISCUSSION: Pulmonary talcosis is observed after inhalation of talc due to occupational exposure, intravenous drug abuse and excessive use of cosmetic talc. The excipients used in oral tablets include talc and other insoluble particles which can induce a foreign-body reaction in pulmonary arterioles. [2,3,4] Lungs represent as a filter to remove this material but rarely small particles can escape this filter and remaining in the circulation until sequestered by the mononuclear phagocytic system, mainly in the liver and spleen causing extrapulmonary talcosis. [2,3] Of all the intravenous drug users pulmonary talc granulomas develop in only 5% of the cases, specifically in those who inject oral tablets. The patients can be asymptomatic but chronic abuse can cause disease progresses with usually a conglomeration of granulomas into masses. Later complications include emphysema, pulmonary arterial hypertension, and congestive heart failure, [5] as in the reported case. Histological finding in biopsy is necessary for diagnostic and the treatment is only supportive. [2]

CONCLUSION: This case report draws attention to systemic talcosis causing renal, pulmonary and cardiac lesions, one of the rare forms of this disease.

Legends: Fig 1. A: Renal biopsy showing a granulomatous reaction and giant cells, with an interstitial inflammatory, infiltrate and foreign material. Fig 1B: Lung biopsy under polarizable light showing refractile crystalline material in the granulomatous reaction.

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