A case of anorexia nervosa complicated by nutritional emphysema and large bullae

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Introduction: Anorexia nervosa (AN) is a psychosocial disorder that is complicated by metabolic, immunological and endocrine abnormalities during the course. Pulmonary complications of AN are rarely reported. Here we report a case of a 43-year-old woman with AN presenting with nutritional emphysema and large bullae, whose symptoms and lung function improved after weight gain.

Case report: A 43-year-old, nonsmoking woman with long-standing severe AN visited our hospital with dyspnea and cough. Her weight was only 26kg and calculated body mass index of 9.8 kg/m² on admission. She underwent chest radiography and chest computed tomography (CT) scan and it revealed large bullae in the apex of left lung with underlying diffuse emphysema and bronchiectasis. Pulmonary function tests showed a predominantly restrictive pattern, reduced vital capacity and total lung capacity, increased residual volume (RV), and markedly reduced DLCO. During 6 years of follow up, she continued neuro-psychiatric counselling and drug for the treatment of AN. Her body weight was increased slowly from 26kg to 48kg. At the same time, dyspnea was also improved. We re-evaluated pulmonary function test. DLCO was increased from 46% to 75% and RV was decreased from 131% (2.12 L) to 83% (1.40 L). In our patient, there is an evidence for improving the symptom and lung function of emphysema, as seen in the increased DLCO and decreased RV, after weight gain in patient with AN.

Conclusion: We present an evidence that malnutrition has been associated with emphysematous change in patient with AN.

An Interesting Rare Case of Inhalation Burn Result from Silane Gas

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Smoke inhalation, defined as airway or pulmonary parenchymal injury resulting from the inhalation of toxic combustion products, presents with a wide range of severity in patients with and without skin burns. Inhalation injuries can occur asphyxia, local irritation, toxic absorption, or allergic effect. Inhaled of high concentration of toxic gas, can causing acute inflammation, acute respiratory failure, and bronchial fibrosis. Silane is an inorganic compound with chemical formula SiH₄. It is a colorless, flammable gas with a sharp, repulsive smell, somewhat similar to that of acetic acid. Silane is fairly toxic and some fatal industrial accidents produced by combustion and detonation of leaked silane in air have been reported. We present a rare case of a 27-year-old male patient who suffered silane inhalation because of an industrial accident.