Pneumomediastinum and Massive Subcutaneous Emphysema Associated with Dermatomyositis

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A 46-year-old woman with dermatomyositis and interstitial lung disease (ILD) was admitted to the hospital because of an exacerbation of myositis (creatine phosphokinase [CK] level, 1,280 U/L) and skin vasculopathy. She had been receiving treatment with corticosteroids for 6 months. She was admitted and received 20 mg/day prednisolone and cyclosporine 50 mg/day. Her CK levels gradually decreased and the ILD stabilized, but the skin vasculopathy deteriorated. Her head and neck were swollen and subcutaneous emphysema and crepitance were observed on the 30th day after admission. Chest computed tomography showed pneumomediastinum and subcutaneous emphysema from the head to the upper arm with a slight exacerbation of ILD (Picture). The development of pneumomediastinum in patients with dermatomyositis can be attributed to; (1) degeneration of alveoli along with ILD-induced bleb formation; (2) weakening of interstitial lung tissues as a result of corticosteroid treatment; and (3) subpleural infarctions and interstitial emphysema caused by vasculopathy (1). All these factors, especially vasculopathy, may have been responsible for the development of the massive subcutaneous emphysema in this case. Although the pneumomediastinum and subcutaneous emphysema improved within 1 week after bed rest and oxygen administration, the patient died 3 weeks later due to rapid progression of ILD.

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**Reference**