

A case of Exercise-induced Pneumomediastinum

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Introduction: Spontaneous pneumomediastinum is a condition in which air is abnormally present in the mediastinum without external causes such as surgery or trauma. It is caused by air leakage in the mediastinum due to increased pressure in the alveoli and bronchial tubes, which is a rare disease that usually improves only with conservative treatment. We report a case of sport-related spontaneous pneumomediastinum of a healthy 17-year-old tennis player, without any trauma, such as being hit by a ball on the chest.

Case presentation: A 17-year-old man with no known underlying disease was admitted to the hospital via the outpatient clinic because of pain from the lower neck to the middle of the chest when he swallowed food or took a deep breath one day before admission. While playing tennis, he has had no specific trauma, such as being hit by a ball, and he also had pain radiating to both sides of his neck. On auscultation, respiratory and heart sounds were normal, and electrocardiogram and cardiac markers were normal. Chest radiography showed air shadows at the left side of trachea and the left cardiac outline. Chest computed tomography showed diffuse pneumomediastinum in both lower neck and right chest wall. Upper gastrointestinal endoscopy and bronchoscopy were performed to rule out perforation or rupture of the esophagus, trachea, and bronchi. Upper GI endoscopy showed minimal change gastro-esophageal reflux esophagitis and chronic superficial gastritis, and bronchoscopy showed no endobronchial lesion. The patient's symptoms improved after conservative treatment such as oxygen inhalation and bed-rest, H2-blocker, and no mediastinal emphysema was observed in the computed tomography image followed up a week later. And he was doing well without any complications at follow-up a year later.

Conclusion: Sport-related spontaneous pneumomediastinum is a benign disease and most cases are fully resolved without any sequelae. Physicians should consider as a differential diagnosis in patients with chest discomfort.

