COMENTÁRIO EDITORIAL

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Spontaneous pneumomediastinum: Recognizing a rare encounter with a benign condition!

The presence of air in the mediastinum is designated pneumomediastinum (PM), and was first described in 1827 by Laenek.[1] The PM may be primary, also called spontaneous or secondary. In contrast to the secondary PM, primary PM is not triggered by trauma or iatrogenic maneuvers.

The spontaneous pneumomediastinum (SPM), is also known as Hamman's syndrome for it was first described in 1939 by Louis Hamman.[2] It arises by the increased intra-thoracic pressure which triggers cellular rupture and dissection of the interstitial space and bronchovascular sheaths towards the mediastinum (Macklin effect).[3] About 76% of the patients are male (7/10 cases), with an incidence of 1/25000 between 5-34 years old.[1]

Typically, the patient has underlying disease (asthma, COPD, interstitial diseases, smoking habits, inhalation of illicit drugs), which makes him more susceptible, or events may occur which precipitate the onset of pneumomediastinum (vomiting, cough, respiratory infection, valsava maneuver defecation, labor, and rarely ARDS, balloon filling or use of wind instruments).[4]

The patients can present with a wide range of symptoms, from cervical and/or thoracic subcutaneous emphysema (70%), chest pain, dyspnea, Hamman's sign in cardiac auscultation (synchronous clicks with heartbeat) up to signs of cardiogenic shock and respiratory failure.[1,5]

The non-specificity of the symptoms can lead to other diagnoses, so the incidence of SPMs may be undervalued.[1]

In the absence of obvious signs and symptoms and history, the distinction between primary and secondary pneumomediastinum becomes difficult. Since the secondary PM can quickly lead to complications, it becomes imperative to exclude secondary causes.[1,6] To this end, it may be necessary to perform upper endoscopy and bronchoscopy beyond the chest X-ray and / or thoracic CT to exclude tracheobronchial tree or esophageal perforation.[1,4]

Spontaneous PM is considered a benign entity with an excellent prognosis, and its approach is mostly conservative. The patient will be admitted for observation, and usually progresses with imaging and clinical improvement in 24 to 48 hours.

The diagnosis of spontaneous PM should be taken into account in the emergency room, especially in younger patients presenting with chest pain and / or suggestive underlying pathology, even in the absence of other obvious symptoms. Often, the presence of chest pain (60-100%) is assumed as muscle pain or other diagnostic.[1]

The discussion of PM should be multidisciplinary, including thoracic surgeons. This is essential not only because PM is infrequent, but also because the decision to have a conservative approach or to have a more exhaustive approach to exclude secondary causes, performing more invasive tests, is not always easy.

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