
PM and SE are usually caused by a iatrogenic or traumatic trigger, although on occasion they may be secondary to an abrupt increase in intra-alveolar pressure, which is a phenomenon known as the Macklin effect. The incidence of PM is low although underdiagnosed because its symptoms are non-specific and the radiological signs are difficult to identify. Typical symptoms at onset include chest pain, dyspnea and subcutaneous emphysema, and occasionally cervical pain, odynophagia, dysphagia, dysphonia

Fig. 1. (A and B) Thoracic CT image showing the presence of gas in the subcutaneous and mediastinal tissue.

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and *pulsus paradoxus*. Hamman’s sign only appears in 12% of cases. Diagnosis is confirmed on chest radiograph by the presence of air separating mediastinal structures or surrounding them and subcutaneous emphysema, while less frequent signs may also be identified, such as the spinnaker-sail sign, pneumopericardium, etc. The differential diagnosis includes acute coronary syndrome, pericarditis, pneumothorax, pulmonary thromboembolism, rupture of the tracheobronchial tree and Boerhaave syndrome. In most cases, there is complete resolution of the symptoms within 4 days. Nevertheless, there are cases that may involve compression of pulmonary or mediastinal veins, which simulates cardiac tamponade. These cases, which Macklin calls “malignant pneumomediastinum”, require fast action that should be directed at immediately evacuating the air accumulated in the mediastinum. Massive accumulation of air in the subcutaneous tissue can also compromise the life of the patient due to pneumatic compression of the thorax, causing progressive hypoxemia and hypercapnia. The use of subcutaneous drains can be very useful in these cases; they are effective almost immediately and can be withdrawn in a few days. In selecting the type of drain, one must take into account their availability and the training of the staff for their insertion. Another important factor is the characteristics of each type of catheter, as smaller-caliber tubes are more comfortable but entail a greater risk of obstruction, and wider tubes are permeable for a longer period of time but can cause patient discomfort.

References


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Infections by Gram-Negative Bacilli in Patients With Pulmonary Arterial Hypertension Treated With Intravenous Prostacyclin

*Infecciones por gramaenegativos en pacientes con hipertensión arterial pulmonar tratados con prostaciclinas intravenosas*

Dear Editor,

I have read with great interest the original article by López Medrano et al. regarding the high incidence of bacteremia due to Gram-negative bacteria (GNB) in patients with pulmonary arterial hypertension (PAH) treated with intravenous (IV) treprostinil compared with IV epoprostenol. This is a known finding in the literature and has been confirmed in a Spanish center with extensive experience in the management of PAH. They also suggest initial empirical therapeutic management until the pathogen is correctly identified. In their conclusions, the authors invite us to carefully weigh the risks and benefits of treatment with IV treprostinil.

Recently, Kitterman et al. have published data about the incidence of bloodstream infection in 1146 patients with PAH from the REVEAL Registry in the United States. They had been treated with either IV epoprostenol or treprostinil, and a greater incidence of infection due to GNB was found in the IV treprostinil group (0.20 vs 0.03 per 1000 days of treatment, *P*<.001). However, this US series shows that the rate of infection has dropped drastically in recent years since the publication and approval of the Clinical Practice Guidelines for the prevention of bacteremia due to central venous catheter in the treatment of PAH with prostanoids. Our own center had also experienced a reduction in the rates of infection in recent years since guidelines were adopted,

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