

EDITORIAL COMMENT

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Lung hernia: A rare consequence of a chest trauma

It is not possible to speak of lung hernia (LH), without referring to its main cause which is chest trauma, the kinetics involved and its results that lead to the development of a hernia.

Significant thoracic Trauma (TT) is not as uncommon as one might think. All over the country, patients with traumatic chest wall injuries show up daily at emergency departments of peripheral and central hospitals. The spectrum runs from the major trauma to the minor one, affecting only the chest cavity, with a wide range of causes, some quite unusual.

The initial approach of a patient with a TT, includes the evaluation of chest wall integrity as well as haemodynamic and respiratory dynamics, with the objective of defining priorities in treatment.

All doctors involved in trauma care, from the pre-hospital emergency to the Intensive Care Unit, should be trained in the initial evaluation of a TT. These patients are not necessarily Thoracic Surgery patients, as specialists are seldomly present in peripheral hospitals, but consultation should be requested whenever needed.

TT treatment is multidisciplinary in most case scenarios, with active cooperation of medical and surgical specialists, as the patients' needs so determine.

Lung hernia or intercostal lung hernia are synonyms of the same rare pathological entity.^{1,2,3,4,5}

For a LH to develop, lung parenchyma needs to protrude through a gap in the thoracic wall, by loss of integrity of the costal grid which can have a congenital cause due to a defect in the sibilson's fascia or be acquired.^{1,2}

Acquired LH occur as complications of TT, or as a complication of thoracic surgery, although spontaneous development does occur in 30% or associated to local pathological transformation.²

We know that acquired LH has no direct relation to the mechanism of trauma or its kinetic, for it can be due to large or small chest wall trauma. LH can be diagnosed immediately after trauma, weeks or even years after the traumatic event.³

Early diagnosis, highly depend on the consequences

on the chest wall and chest cavity, and the symptoms at presentation. Late diagnosis most often happens in asymptomatic individuals as imaging findings when investigating other complaints.

In both cases, ethiological investigation should reveal its cause, as is the case of the article by Sara Lopes et al., published in this number of *Revista Portuguesa de Cirurgia Córdio-Torácica e Vascular*,⁴ on the case of a LH cause by an unusual chest wall trauma, occurring 14 years before.

Due to its rarity, this pathology is seldomly described in literature, with the publication of around 300 cases, mostly as isolated case reports.^{1,5} Approximately 20% of the publications report congenital hernias and 80% of acquired defects.²

The mechanics of the original trauma is unusual, even in a Country where such cultural events still attract large number of people. The trauma victim was assisted in a Hospital setting and deemed for nonsurgical management of his chest wall trauma. Only after 14 years, when his COPD progressed, was the LH diagnosed, identified on inspection, asymptomatic. After being evaluated by a thoracic surgeon, it was decided not to correct it.

When this pathology has no symptoms, it is usually not operated, but it can be corrected at the patients request, if a visible bulging in the thoracic wall makes him uncomfortable.

These cases can and should be referred to a thoracic surgery outpatient clinic for evaluation. On rare occasions cooperation with plastic surgery may be required.

After the initial trauma, follow-up should be maintained, and the role of respiratory rehabilitation cannot be underestimated in the infirmary and after discharge, reducing permanent disabilities and promoting an earlier return to active life.

There are no publications to support high level scientific recommendations for the treatment of LH.² The treatment remains dependent on the experience and common sense of the multidisciplinary team treating these lesions.

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