INTRA-PLEURAL FIBRINOLYTIC THERAPY IN A PATIENT WITH FIBROTIC TRACTS IN PLEURAL EFFUSION OBSERVED IN LUNG SONOGRAPHY BUT NOT IN TOMOGRAPHY SCAN

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BACKGROUND:

Lung sonography (LS) is a valuable tool in the management of acute respiratory failure (ARF) in critical care units¹. LS can diagnosis several lung abnormalities, modify the initial diagnosis and determinate therapeutic changes. Besides, LS has demonstrated to be superior to chest radiography in several points with A and B grades of scientific evidence, but thoracic Tomography Scan (TC) is still considered to be the gold standard in pulmonary diagnosis²

CASE PRESENTATION:

Male 71 years old
Postoperative ARF with admission to ICU criteria
Large left pleural effusion in chest x ray
Non Invasive Ventilation is instaurated

A **chest drainage** tube was punctured with the aim of improving NIMV weaning
In the first two hours; 700cc of amber liquid with transudate characteristics were obtained

In a x ray control study; an image of whole white left lung similar to the previous one was obtained. A **thoracic CT** scan was solicited. A septated or loculated pleural effusion was ruled out

Fibrotic tracts were evident in pleural effusion during a systematic lung sonography exploration. According to these results, we proceeded to apply **intra-pleural fibrinolytic therapy**.

More than 2000ml were drained in the first four hours, with improvement in radiological studies and allowing NIVM removal.

DISCUSSION:

Intrapleural fibrinolysis with urokinase may be potentially effective for reducing the need for surgery. Additionally, intrapleural fibrinolytic therapy is effective for shortening the lengths of hospital stays without increasing the incidence of severe side effects^{3,4}

As reflected in the International evidence-based recommendations for point-of-care lung ultrasound, chest sonography could be a more sensitive test than TC; for example regarding to pleural effusion characteristics². We think this point is a novel approach in clinical management of ARF because we would not have used intra-pleural urokinase attending to only CT scan results.

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