

Global summit on
TOXICOLOGY AND RISK ASSESSMENT

&

International Conference on
CARDIOLOGY AND CARDIAC NURSING

October 24-25, 2018

Paris, France



Daniel Lichtenstein

Hospital Ambroise-Pare, France

The holistic function of lung ultrasound; Its usefulness in diagnosing hemodynamic pulmonary edema

Lung ultrasound was not supposed to exist. However, careful analysis shows that dynamics and artefacts can be described. The normal pattern is lung sliding associated with a repetition of the pleural line called the A-line. The B-line is a certain artefact with seven standardized criteria (comet-tail, arising from the pleural line, moving in sync with lung sliding, long, well-defined, erasing A-lines, hyperechoic). It can be seen in normal subjects. If numerous (more than two between two ribs are called Lung Rockets), and diffuse to the anterior chest wall, it indicates pathologic interstitial syndrome. The association of this pattern with lung sliding is called the B-profile in the BLUE-protocol. The B-profile showed a sensitivity of 97% and a specificity of 95% for the diagnosis of acute hemodynamic pulmonary edema. In ambulatory patients, detection of a

B-profile may be relevant, as far as the interstitial syndrome of pulmonary edema is an early, infraclinical step. Diagnosing respiratory failure, mild dyspnea, controlling volemia in dialysed patients, having another approach of left ventricle diastolic function are some of the potentials of the B-profile. A simple unit without Doppler is used for lung ultrasound, as well as whole body critical ultrasound. Other parts of lung ultrasound (detecting pneumothorax, pleural effusions or lung consolidations) are in the full scope of lung ultrasound, allowing a decrease of irradiation and costs. Considering lung ultrasound data to the traditional echocardiographic assessment adds basic pieces of information, and is part of the definition of the holistic function of lung ultrasound.

Biography

Daniel Lichtenstein is medical intensivist, visiting Professor, working since 1989 at Francois Jardin's medical ICU. He has defined in 1991 critical ultrasound as a holistic whole body approach. He has published regular textbooks since 1992 (last and 6th Edition, Lung Ultrasound in the Critically Ill, 2016, Springer), two dozens of original articles (critical, venous and lung ultrasound) and presented in 500 conferences.

D.Licht@free.fr