Study: Lung Ultrasound Helpful in Pulmonary Embolism Diagnosis

Compared to Wells score, a pretest risk stratification enhanced by lung and venous ultrasound performs better in the early diagnostic process of pulmonary embolism (PE). That is the main finding of a study by Nazerian et al. to be published in Academic Emergency Medicine, a journal of the Society for Academic Emergency Medicine.

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The new study suggests that transthoracic lung ultrasound can show alternative diagnoses such as pneumonia or pleural effusion. The data add to findings of a recent systematic review and meta-analysis showing useful overall diagnostic accuracy.(1) Taken together, these papers suggest that lung ultrasound should be considered by clinicians when evaluating patients with suspected pulmonary embolism.

Jeffrey Kline, vice chair of research in the Department of Emergency Medicine, and professor in the Department of Cellular and Integrative Physiology at Indiana University School of Medicine, stated: "One of the largest criticisms of the widely used Wells score for estimating likelihood of potentially fatal blood clots in the lung (PE) is the vagary that surrounds the definition of its term, 'alternative diagnosis more likely than PE'. Most clinicians who believe an alternative diagnosis is more likely than PE cannot name the diagnosis."

As demonstrated in the study by Nazerian et al., "lung ultrasound can quickly and non-invasively allow physicians to literally see the identity of 'something else wrong' other than blood clots in the lung," Professor Kline noted. "This advantage can help them be more confident in deciding not to order expensive testing that causes large doses of radiation exposure to patients."

Source: Society for Academic Emergency Medicine

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