

Lung scintigraphy more reliable than CTA in excluding pulmonary embolism in pregnant patients

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A medical imaging procedure known as lung scintigraphy may be more reliable than pulmonary CT angiography (CTA) for identifying or excluding pulmonary embolism (PE) in pregnant patients, according to a study published in the November issue of the *American Journal of Roentgenology*.

PE, a blood clot lodged in an artery supplying the lungs, is the leading cause of maternal death in pregnancy. CTA is the imaging modality of choice for the diagnosis of PE, however lung scintigraphy, a form of radionuclide imaging that produces two-dimensional images, has shown to produce better diagnostic quality images more often than CTA in pregnant patients.

"Our study analyzed 28 CTA studies and 25 lung scintigraphy studies performed on a group of 50 patients," said Carole A. Ridge, M.D., lead author of the study. "The results showed that lung scintigraphy is more reliable than CTA for the diagnosis of PE. Only one out of 25 lung scintigraphic studies was inadequate for diagnosis; compared to ten out of 28 CTA examinations that were found to be inadequate for diagnosis," she said. Examinations were considered inadequate when poor image quality prohibited a diagnosis.

"During CTA in pregnant patients, it is hard to achieve optimal image quality because of the hemodynamic effects (changes in blood flow and

circulation) of pregnancy," said Dr. Ridge.

"Our findings confirm what recent reports in the literature have suggested — CTA is less reliable for the diagnosis of PE in pregnant patients. [Lung](#) scintigraphy is more reliable than CTA for the diagnosis or exclusion of PE in pregnant patients, and should be considered the imaging technique of choice unless the CTA image technique can be optimized for the pregnant patient," she said.

Source: American Roentgen Ray Society

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