

Estimated radiation risks associated with abdominal CT scans are greater in younger patients

May 3 2010

In younger patients, the estimated radiation risks associated with abdominal and pelvic computed tomography (CT) scans are twice those of older patients, according to a study to be presented at the ARRS 2010 Annual Meeting in San Diego, CA.

"Estimating the risks associated with [ionizing radiation](#) is complex," said James Koonce, MD, lead author of the study. "Many variables such as patient size, age, and the region of the body being imaged all effect the total risk. Our study looked at how the overall risks associated with abdominal/pelvic CT scans depend on patient sex and age," said Koonce.

The study, performed at the Medical University of South Carolina in Charleston, SC, included 51 patients who underwent routine contrast-enhanced abdominal and pelvic CT examinations. "We found that the estimated radiation risk for a 31 year old (0.91 per 1,000) was about double that for a 74 year old (0.47 per 1,000). The median radiation risk to 25 males was 0.61 per 1,000 and for 26 females was 0.74 per 1,000," said Koonce.

"Clinicians ordering imaging tests must use their best clinical judgment to select patients with a reasonable pre-test probability that the diagnosis afforded by CT will give valuable information to effect patient management," he said.

"Knowing the risk involved with [radiation exposure](#) to a patient during an abdominal/pelvic CT allows for more accurate risk benefit evaluation when a physician is deciding whether or not to order an exam," said Koonce.

Provided by American College of Radiology

Citation: Estimated radiation risks associated with abdominal CT scans are greater in younger patients (2010, May 3) retrieved 25 April 2024 from <https://medicalxpress.com/news/2010-05-abdominal-ct-scans-greater-younger.html>

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