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[American Roentgen Ray Society](#)

Extremely low-dose MDCT useful for reducing hospital stay for patients with acute abdominal pain

Extremely low-dose MDCT of the abdomen and pelvis is useful in providing needed diagnostic information and reducing hospital stay in patients with acute nonspecific abdominal pain, according to a new study by researchers from the Emory University School of Medicine in Atlanta, GA, and Massachusetts General Hospital in Boston, MA.

For the study, researchers analyzed the findings of 163 patients who had nonspecific abdominal pain and who underwent ultra-low-dose MDCT of the abdomen and pelvis. All of these patients would have otherwise undergone three view abdominal X-ray series according to standard department protocol. "We found that 61 patients (37%) were able to be discharged the same day from the emergency department based on negative findings on MDCT," said Unni Udayasankar, MD, lead author of the study. The mean duration of the hospital stay overall for the study population was 2.4 days.

"Patients with unspecified abdominal pain usually have to get abdominal X-rays," said Dr. Udayasankar. "Abdominal X-rays lack accuracy in patients with acute abdominal pain. Our study focused on the feasibility of substituting three-view abdominal X-rays with ultra-low-dose MDCT and assess its impact on patient care and management," said Dr. Udayasankar.

"With developments in CT technology it is now feasible to acquire good quality images at extremely low radiation doses. Patients with acute abdominal pain who would otherwise have undergone three-view abdominal X-rays may be evaluated with ultra-low-dose MDCT at comparable radiation doses. CT studies improved reader confidence and resulted in early diagnosis and patient management," added Dr. Udayasankar.

The full results of the study will be presented on Tuesday, May 8, 2007 during the American Roentgen Ray Society Annual Meeting in Orlando, FL.

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