According to a new analysis of medical records that were gathered from more than 300 hospitalised patients, routine imaging scans used to help diagnose heart attacks generated incidental findings in over half of the patients. However, only 7% of these findings were medically significant. Researchers are thus urging imaging experts and hospitals to minimise the unnecessary cost and potential risks associated with these incidental findings. Results are published in the Journal of Hospital Medicine.

The investigators reviewed the medical records of 376 patients over a two-year time-frame. 197 of these patients had unexpected incidental findings in diagnostic images. 50% of these findings were considered medically minor while 42% were moderate and 7% were of major clinical significance.

Venkat Gundareddy, MD, MPH, a director of the Collaborative Inpatient Medicine Service at Johns Hopkins Bayview Medical Center in Baltimore highlights that incidental findings are associated with longer length of hospital stay and both clinical and financial challenges. Even though findings do not conclusively attribute additional hospital stay to incidental findings, he believes that they may be a factor.

As the sensitivity and accuracy of x-rays, MRIs, ultrasounds and CT scans increases, the frequency of incidental findings such as kidney cysts, renal stones, thyroid nodules, bone lesions, enlarged lymph nodes, lung nodules and masses also increases.

Often, patients with chest pain are admitted to the hospital and have to undergo CT and other imaging tests, mainly because doctors want to ensure the pain is not cardiac related. However, chest CT scans often end up showing lung or thyroid nodules or enlarged lymph nodes. During this review, it was found that findings that were unrelated to chest pain kept patients in the hospital approximately 26% longer as compared to those without any incidental findings.

In most cases, when nodules or bone lesions are discovered, patients have to undergo further testing. This increases hospital stay, workload and expenses. While this additional money and effort may be necessary for some patients, the researchers believe that nationwide, it is important to reduce unnecessary costs.

"Choosing wisely what tests are needed for each patient, based on presenting complaints and pertinent history, would prevent unnecessary use of imaging and detection of incidental findings," notes Dr. Gundareddy. "Establishing a robust outpatient care pathway to further workup incidental findings, as needed, would also..."
decrease inpatient length of stay," he adds.

Dr. Gundareddy also points out that while there is some guidance from the American College of Radiology on how to manage incidental findings from abdominal CT scans, there is still a lack of follow up guidelines for incidental findings in hospitalised patients. As imaging gets more sensitive, it is important to determine what is and is not clinically significant in order to avoid unnecessary risk and additional stay for patients.

Source: Johns Hopkins Medicine
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