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Radiological Evaluation of Blunt Abdominal Injuries

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Abstract

Background: Trauma is an epidemic of modernization. Clinical examination alone is not reliable especially in cases of abdominal injuries. Therefore, the radiological examination is an invaluable tool in the management of trauma. We in the current study tried to evaluate the different modes of radiological examination in blunt abdominal injuries reporting to our institute. **Methods:** This cross-sectional study was conducted in the Department of Radiology, Prathima Institute of Medical Sciences, Karimnagar. N=31 patients who were stable to undergo all three X-ray, US, and CT examinations and had at least one of these studies interpreted as positive were included in this study. Whenever possible, X-Ray and US preceded CT and the time gap between the three studies was kept to the minimum to make the studies comparable. Each X-Ray, US, and CT scans were performed in all 31 patients. **Results**: Out of the total 31 patients, in 14 patients US and CT showed similar findings. In 15 patients CT detected additional findings or provided additional information but did not change the management. In 4 patients CT was decisive for the management or surgical planning. However, all of the US showed the presence of free fluid. In 30 patients US showed either intra-abdominal free fluid or organ injury or both. In one patient US did not reveal any abnormality. Liver injury was later detected on CT. US had an overall sensitivity of 96%, a specificity of 100%, and an accuracy of 96%. **Conclusion**: US is a valuable initial modality for the evaluation of patients with abdominal trauma. CT is required in most US positive patients to delineate the exact extent of the injury and to exclude any other significant injuries. Also, in a small but significant group, CT may change the management approach. Symptomatic patients should have a CT even if the US examination is negative.