ISOLATED POST-TRAUMATIC ADRENAL HEMATOMA: DETECTION BY BEDSIDE ULTRASOUND IN THE EMERGENCY DEPARTMENT

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CASE REPORT

A 34-year-old man without previous medical history was brought to the Emergency Department (ED) after being involved in a motorcycle crash. He sustained trauma to the right side of the abdomen. On examination, multiple abrasions were noted in the right upper abdomen and the patient complained of severe pain. Bedside ultrasound was performed upon the patient’s arrival at the ED; it revealed a mass that was isoechogenic with the liver within the hepatorenal space (Figure 1). Subsequently, a computed tomography (CT) scan was performed to determine the extent of the traumatic abdominal injury. The CT scan showed a 4.5 × 2.5-cm right-sided adrenal mass with an attenuation of 68 Hounsfield units, which was compatible with traumatic adrenal hematoma (Figure 2). He was admitted to the hospital ward of the Urology Department for conservative treatment, and was discharged uneventfully after 4 days.

DISCUSSION

Adrenal gland injuries are rare in blunt abdominal trauma, and most are associated with great injury severity (1,2). Due to the unique adrenal anatomy and the trauma mechanism, adrenal injury is typically unilateral and right-sided (1–4). Because unilateral adrenal injury tends to be clinically benign, management is generally non-operative. Surgical intervention is typically performed for associated injury to internal organs (1,3). Bilateral adrenal injury, when it occurs, can lead to life-threatening adrenal insufficiency, and prompt corticosteroid replacement is required (1,4).

Figure 1. Trauma ultrasound showed a mass that was isoechogenic with the liver within the hepatorenal space.
Adrenal hemorrhage is easily overlooked in trauma patients in the ED (4). The isolated adrenal hematoma, as seen in the case presented here, is seen in only 4% of all adrenal injuries (3). We present this case to increase awareness of this uncommon injury and associated lethal adrenal crisis if bilateral glands are involved. Trauma ultrasound is an effective, non-invasive, and useful screening tool for detecting adrenal injuries.

REFERENCES