

Background

Bilateral adrenal hemorrhage and hematoma can have serious outcomes, including the potential for life-threatening acute adrenal insufficiency. These conditions are commonly identified incidentally on abdominal imaging in acutely unwell or traumatic patients.

In context of the corona virus disease 2019 (COVID-19), there have been rare case reports of bilateral adrenal hemorrhage (BAH) and hematoma, these complications are partially linked to the severe inflammatory response triggered by the virus, leading to prothrombotic complications and a wide spectrum of morbidity.

Case Presentation

A 71-year-old Female who had a history of COPD and a recent COVID-19 infection that was treated successfully with Paxlovid for 5 days course, presented to emergency department due to ongoing issues of nausea, vomiting, poor oral intake and generalized weakness spanning about a week and a half leading up to her hospital visit.

Given the significant lab findings of hyponatremia 115mmol/L, hyperkalemia 5.3 mmol/dL, glucose 89 mg/dL, and serum osmolarity 240 mOsm/kg, the patient was administered normal saline boluses and maintained on fluid therapy. This approach was taken due to the likelihood of her being hypovolemic because of vomiting.

Based on the observation of low AM cortisol level <0.8 and a failed Cosyntropin test, the patient received the diagnosis of primary adrenal

Case Presentation (continued)

insufficiency with an uncertain underlying cause. She was appropriately started on hydrocortisone treatment. However, she faced complications as she experienced anaphylactic reactions, necessitating her admission to the ICU.

Subsequent work up with abdominal CT scan (figure 1) revealing bilateral adrenal hemorrhage with measurement of up to 2.6 cm on left and 2.1 cm on the right.

Additionally, an abdominal MRI was conducted (figure 2) which indicated bilateral non-enhancing hematoma.

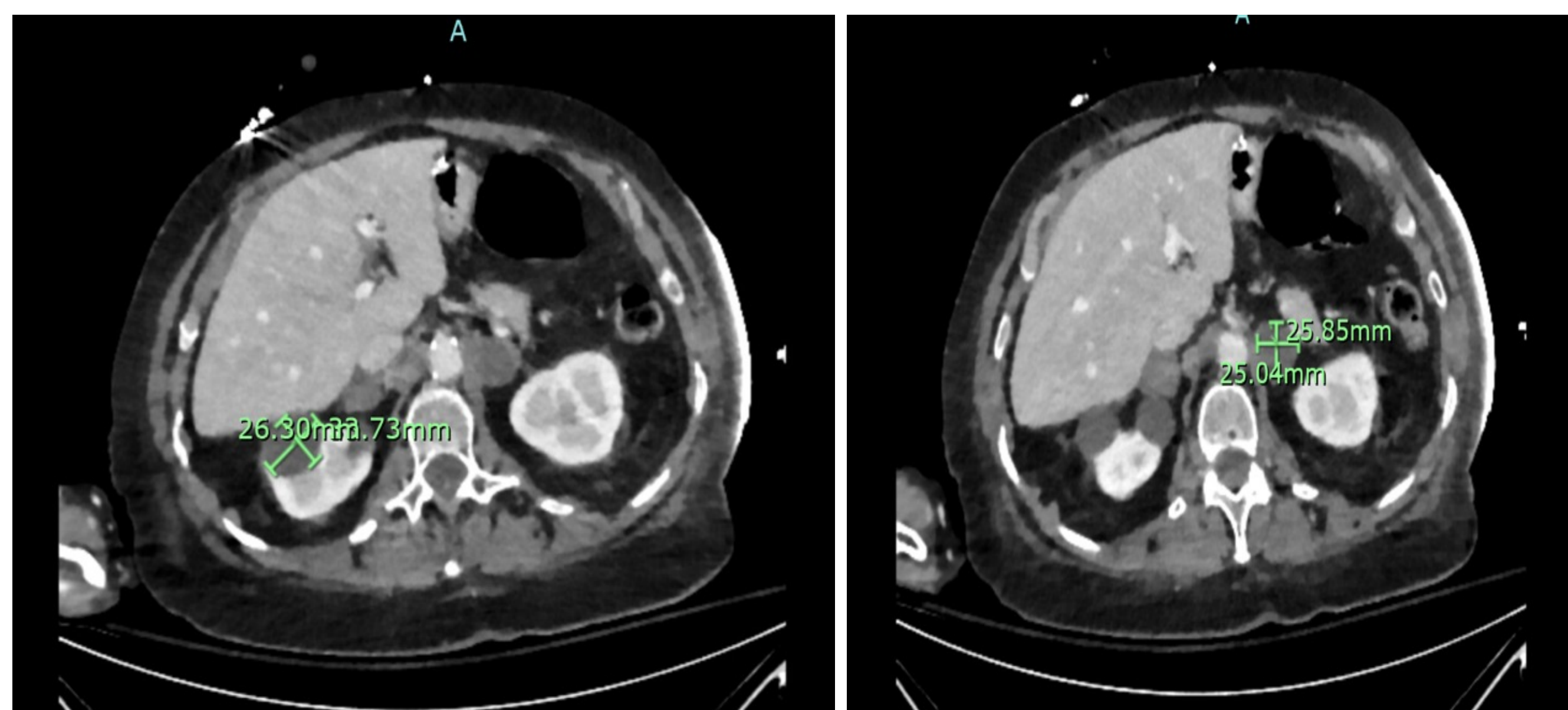


Figure 1: CT scan of abdomen showing bilateral adrenal lesions represent evolving Adrenal hematoma.

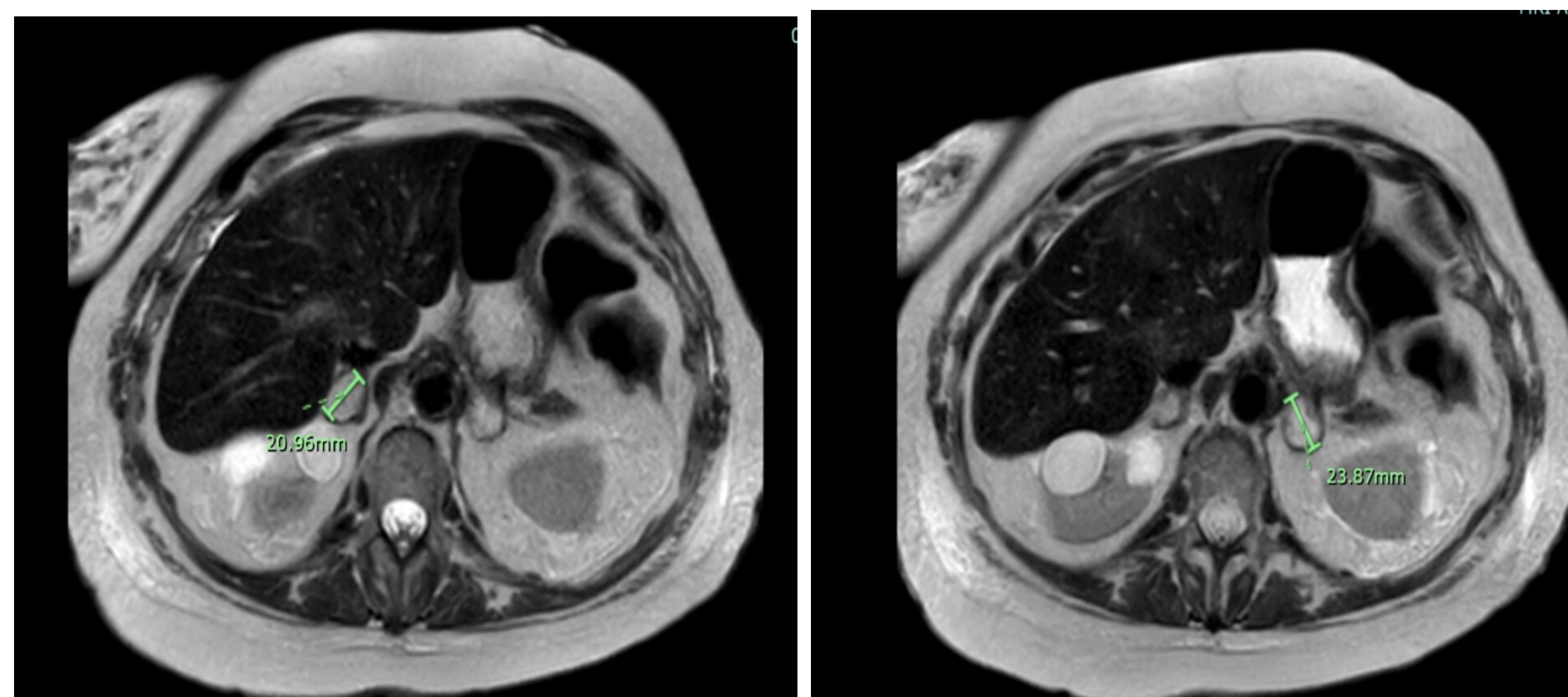


Figure 2: MRI of abdomen showing bilateral Adrenal hematoma.

Outcome

Patients condition improved after being switched to Solu-Medrol and that she was successfully extubated. With her clinical stability, improving hyponatremia, and overall progress, she was discharged while on daily Prednisone and Fludrocortisone. Following her discharge, she's advised to have regular follow-up appointments with her endocrinologist.

Conclusion

Bilateral adrenal hemorrhage although rare, can be serious and potentially fatal complication of COVID-19 infection. Recognizing the importance of prompt investigations and close monitoring of clinical indicators, symptoms and biochemical markers for adrenal insufficiency is crucial.

Having a high level of suspicion and employing a multidisciplinary approach for both initial treatment and ongoing management are vital factors in achieving positive outcomes for patients facing this complex condition.