

# That Bloody Kidney



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## **INTRODUCTION**

Renal hemorrhage is a rare cause of abdominal pain and can be easily missed. We report a case of an elderly gentleman with left renal hemorrhage detected by bedside ultrasound in emergency department.

## **CASE REPORT**

- A 62 year old gentleman presented to the emergency department with history of abdominal pain for three days There was no history of trauma, fever or intestinal obstruction symptoms.
- He has End Stage Renal Failure (ESRF) and was taking Warfarin tablets for deep vein thrombosis.
- On examination, the patient was hypotensive and pale. Abdominal examination revealed a palpable mass over the left upper quadrant, measuring 10cm x 6cm which was firm, non-mobile and tender on palpation.
- Laboratory findings revealed white blood cell count of 5.26 x 10<sup>9</sup>/L, hemoglobin 6.7g/dL, platelet count 220 x 10<sup>9</sup>/L, lactate 16.8mmol/L, PT 45s, APTT 51.2s and INR 4.
- Bedside ultrasound over the left kidney showed gross hydronephrosis with heterogenous contents within the renal pyramids.
- Based on the clinical, laboratory and bedside ultrasound findings, the working diagnosis was left kidney hemorrhage secondary to overwarfarinization.



Figure 1: Abdominal x-ray showed opacity over left side of abdomen



- The contrast-enhanced CT (CECT) Abdomen confirmed that there was spontaneous active left renal intraparenchymal hemorrhage with extensive perirenal hematoma.
- The patient underwent a left renal artery embolization and was transfused with 3 pints of packed cells and 4 units of fresh frozen plasma prior to this procedure.
- The abdominal pain resolved after the procedure and patient was discharged well subsequently and could carry on with hemodialysis for his ESRF.

### **DISCUSSION/CONCLUSION**

- ESRF patients run the risk of being overwarfarinized leading to renal hemorrhage<sup>1</sup>. The diagnosis should be considered in patients who are taking Warfarin and presenting with abdominal pain and high lactate.
- High index of suspicion should be exercised for patients who are on anticoagulant
- In the event that CT is not available, renal hemorrhage could be detected quickly with the use of bedside ultrasound<sup>2</sup>.
- This greatly aids in the facilitation of these patients for urgent renal artery embolization and improves mortality.

#### **ACKNOWLEDGEMENT**

I would like to express my deep appreciation particularly to the following: Datuk Dr. Mahathar, Dr. Hidayah Shafie, and all the authors stated above in contributing to the success of this case write-up. I declare that there are no conflicts of interests from all the authors. Figure 2: Bedside ultrasound image of Left Upper Quadrant (LUQ) showed gross hydronephrosis with heterogenous contents within the renal pyramids



Figure 3: CECT Abdomen showed spontaneous active left renal intraparenchymal hemorrhage with extensive perirenal hematoma and gross hydronephrosis

#### **REFERENCES**

- Limdi NA, Beasley TM, Baird MF, Goldstein JA, McGwin G, Arnett DK, Acton RT, Allon M. Kidney function influences warfarin responsiveness and hemorrhagic complications. J Am Soc Nephrol. 2009 Apr;20(4):912-21. doi: 10.1681/ASN.2008070802. Epub 2009 Feb 18. PMID: 19225037; PMCID: PMC2663833
- O'Neill, W. C (2014), Renal Relevant Radiology: Use of Ultrasound in Kidney Disease and Nephrology Procedures. Clinical Journal of The American Society of Nephrology, 9(2),373-381. doi: 10.2215/ CJN.03170313