CRISIS IN THE CORTEX

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CASE PRESENTATION

RECORDS | PROGRESS NOTES

ID: 64F
CHIEF CONCERN: "generalized weakness"
PAST MEDICAL HISTORY:
1. IgG MM s/p auto-SCT (2018) in PR, on Lenalidomide 5mg DIE
2. Paroxysmal Afib (CHADS 0), on Apixaban 5mg BID
3. Previous pericarditis (2021)
4. Polyarthritis NYD (2021)
5. Migraines with aura

HISTORY OF PRESENT ILLNESS: **Two-week history of sudden-onset fatigue,anorexia, and vomiting.** No abdominal pain, infectious symptoms, B symptoms, or sick contacts/travel.

Two previous ER visits with impression of viral gastroenteritis and possible community-acquired pneumonia (treated with amoxicillin-clavulanate/doxycycline).

PHYSICAL EXAM: BP 105/71 HR 106 RR 18 SpO2 97% RA T 36.6
Appeared fatigued, but non-toxic.
Examination otherwise non-contributory.

INVESTIGATIONS:
CBC: **Hb 102** ← **110** (MCV 91.8) **Plt 92** ← **167** ← **116** **WBC 3.5** ← 5.2
CHEM: Cr 82 **Na 130** K 4.8 HCO3 22 (AG 13) Mg 0.78
LFT: Bili 12 ALT < 5 ALP 89 Albumin 31
COAG: **INR** 1.2 ← **2.1**
VBG: pH 7.37/pCO2 42/HCO3 24 Lactate 1.3

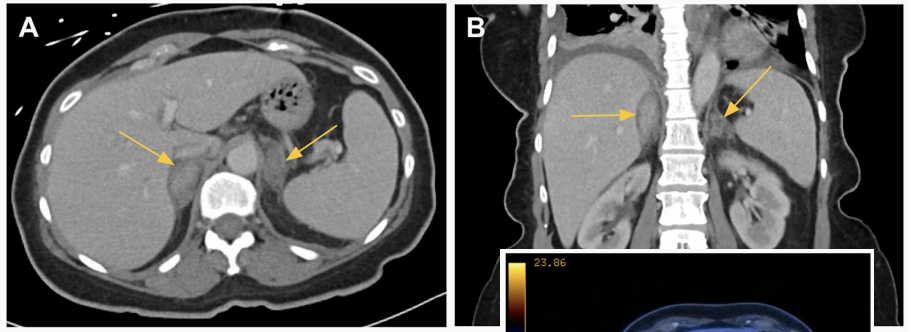


Figure 1. CT Abdomen-Pelvis C+ showing **areas of heterogeneous enhancement of adrenal glands** expanding the adrenal tissue bilaterally.

Figure 2. PET scan with **spontaneously hyperdense bilateral adrenal glands with absent FDG uptake centrally** and rim of minimal activity on the left, SUV 3.5.

? DIAGNOSIS

A.M. CORTISOL 61 nmol/L

ADRENAL INSUFFICIENCY SECONDARY TO BILATERAL ADRENAL HEMORRHAGE

Laboratory Test	Result (Reference Range)
Endocrine	
Early morning serum cortisol	61 nmol/L (172 - 497 nmol/L)
Adrenocorticotropic hormone	13.8 pmol/L (1.6 - 13.9 pmol/L)
21-hydroxylase antibody	5 ISR (0 - 35 ISR)
Coagulation	
INR	2.1 (0.8 - 1.2)
APTT	25.4 s (24.6 - 37.6 s)
Fibrinogen	8.0 g/L (2.0 - 4.5 g/L)
Haptoglobin	3.06 g/L (0.30 - 2.00 g/L)
Antiphospholipid Antibody Screen	
Lupus anticoagulant normalized ratio	1.14 (0.00 - 1.20)
Anticardiolipin antibody IgG	< 9 GPL u/mL (0-21 GPL u/mL)
Anticardiolipin antibody IgM	< 9 MPL u/mL (0-21 MPL u/mL)
B2-glycoprotein	< 1.4 U/mL (0.0 - 12.0 U/mL)

Table 1. Results of laboratory investigations for the etiology of bilateral adrenal hemorrhage.

ETIOLOGIES OF ADRENAL HEMORRHAGE

- Trauma
- Neoplasm (malignant > benign)
- Sepsis, Waterhouse-Friderichsen syndrome
- Infections (e.g. COVID-19)
- Inherited coagulopathy
- Acquired coagulopathy: anticoagulation, antiplatelets, antiphospholipid syndrome, DIC, HIT, VITT, etc.
- Peripartum
- Iatrogenic
- Idiopathic

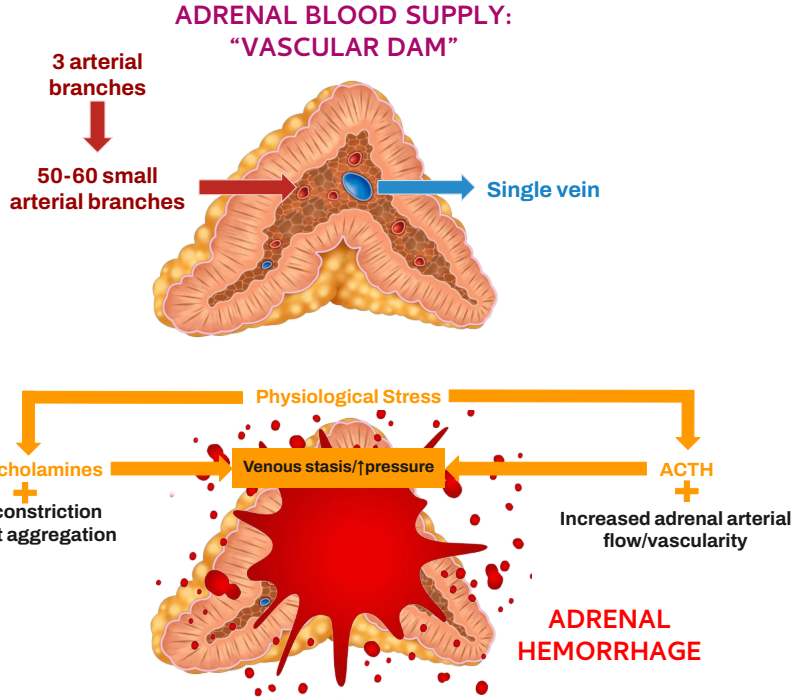
TREATMENT: parenteral corticosteroids initiated with rapid improvement, switched to oral regimen at discharge (no indication for mineralocorticoid replacement), anticoagulation held temporarily.

ADRENAL HEMORRHAGE

KEY POINTS

Adrenal hemorrhage is a **potentially life-threatening complication** that is often overlooked due to its **vague, non-specific presentation.**

Wang et al. (2024) retrospective study of 193 patients with adrenal hemorrhage found that compared to patients diagnosed after trauma, shock, or post-operatively, **"anticoagulation was noted to be a risk factor among patients with spontaneous adrenal hemorrhage (26.4% vs 6.9%; p < 0.002)"**



CONSIDER THE ADRENAL GLANDS AS POTENTIAL ATYPICAL BLEEDING SITES IN PATIENTS WITH BLEEDING DIATHESIS OR RECEIVING ANTICOAGULANTS TO ENSURE TIMELY IDENTIFICATION, TREATMENT, AND PREVENTION OF DECOMPENSATION.

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CONFLICT DISCLOSURES

	Co-author	Conflict disclosures
1	Hajare Iraqi	No conflict of interest to disclose.
2	Maral Koolian	No conflict of interest to disclose.
3	Jill Pancer	No conflict of interest to disclose.
4	Teresa Cafaro	No conflict of interest to disclose.