

INTRODUCTION

Adrenalitis: Inflammation of adrenal glands

Causes:

- Infection: bacterial, viral , fungal
- Autoimmune
- Haemorrhage

CASE DESCRIPTION

23year old at 34+3 presented with Acute abdominal pain

Patients Background

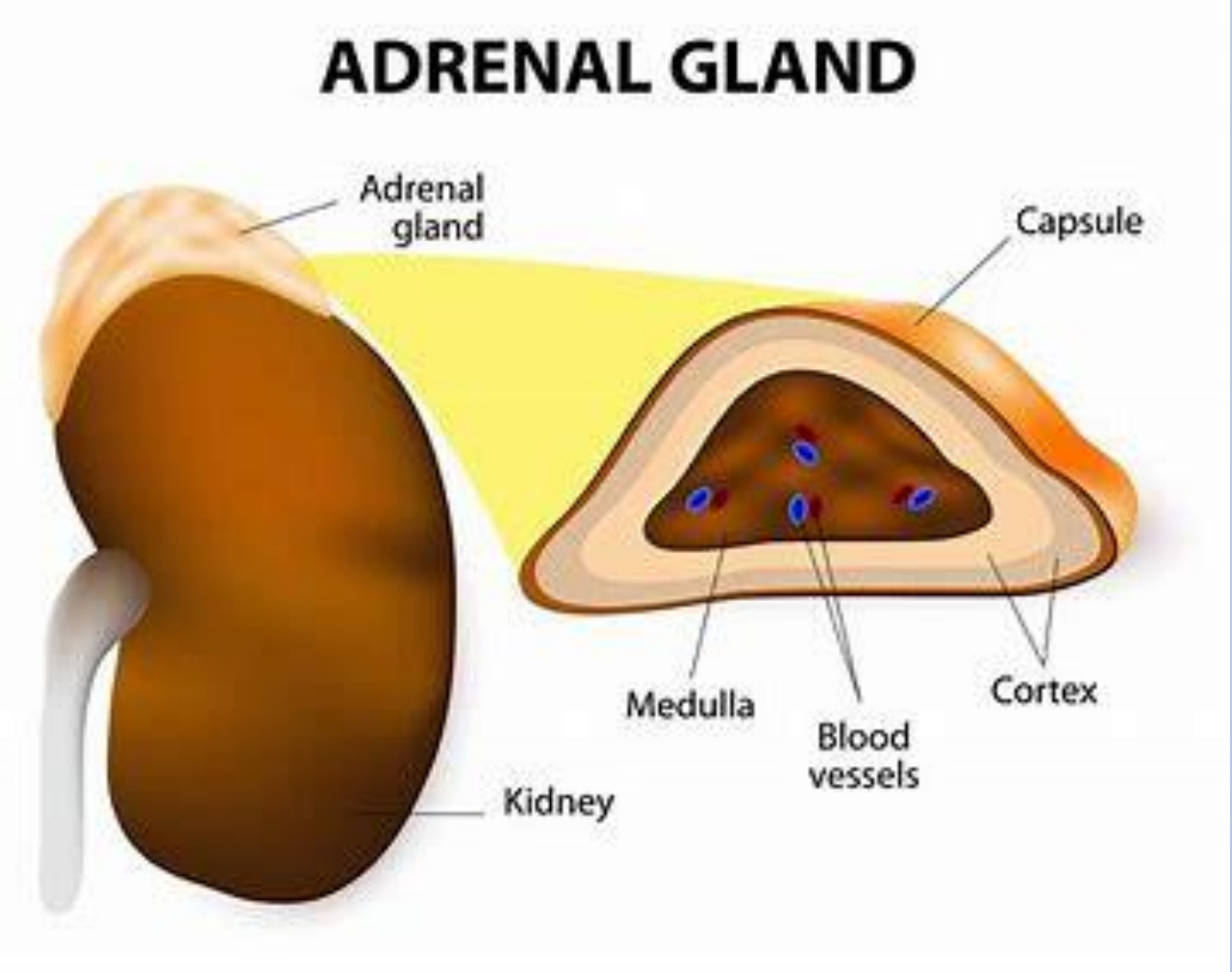
Gravida 2 Parity 1
Obstetric Risk factor: Previous Caesarean delivery
Medical Hx: nil
Surgical Hx: Appendicectomy
Normal First Trimester and Anomaly scans

Triage Assessment

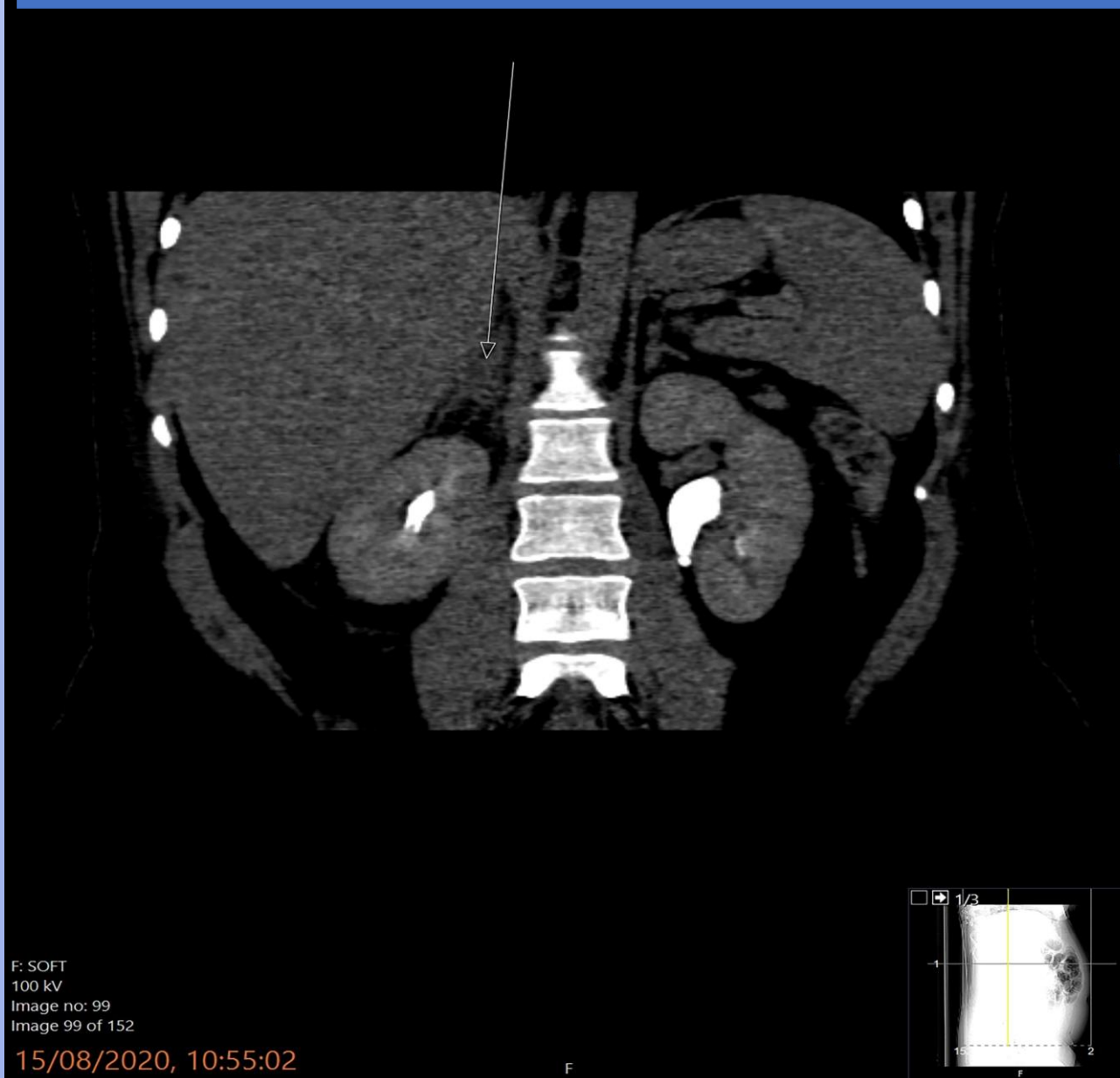
- Presenting complaint: Acute onset abdominal pain with 3 episodes of loose stools. No urinary symptoms or vomiting. Good fetal movements
- Vitals stable
- Palpable uterine tightenings
- CTG reassuring, uterine activity noted
- Cervix closed, FFN 4

Management

Analgesia , steroids , discharged after 24 hours



Phased CT Scan Image



CT shows: Enlarged Right Adrenal with Periadrenal fat stranding

Readmission

- Right upper quadrant pain, radiating to flanks, back and shoulder tip
- Vitals Stable
- Voluntary guarding, no peritonism, uterus relaxed
- CTG reassuring , no uterine activity
- Cervix closed , no bleeding

Investigations

- USS abdomen: Noted to be technically challenging , No cause identified
- Surgical review : no apparent cause noted

Differential Differential

- Ovarian torsion

Management

- Broad spectrum antibiotics in view of raised inflammatory markers
- Decision for caesarean delivery in view of unexplainable pain not responding to pain relief & ?ovarian torsion

Caesarean Section : Intraoperative findings

- No haemoperitoneum
- No abruption
- No adnexal torsion
- Baby delivered in good condition: admitted to SCBU for supportive care
- EBL 400ml, no complication
- No cause identified

References

- Lindsay JR, Nieman KL, The Hypothalamic-Pituitary-Adrenal Axis in Pregnancy: Challenges in Disease Detection and Treatment. *Endocrine Reviews* 2005 Oct;26(6):775–799
- Woodhead, N, Nkwam, O, Caddick, V, et al. Surgical causes of acute abdominal pain in pregnancy. *The Obstetrician & Gynaecologist* 2019; 21: 27– 35.

Postnatal Day 0

- Initially pain free
- few hours later- worsening pain not responding to simple pain relief
- Ileus excluded

Investigations:

- Contrast CT Abdo pelvis: abnormal hyper-attenuation and stranding seen within the right adrenal bed
- Serum Cortisol: 679nmol/L

Differentials:

- Adrenal Haematoma
- Adrenalitis
- Adrenal thrombosis

Management:

- Multidisciplinary approach
- IV Antibiotics recommenced
- hydrocortisone 20mg BD

Bloods at	WBC	Neutrophils	CRP
Triage	14.1 10 ⁹ /L	9.5 10 ⁹ /L	1mg/L
Readmission	18.1 10 ⁹ /L	14.2 10 ⁹ /L	1mg/L
Repeat Bloods	23.7 10 ⁹ /L	18.7 10 ⁹ /L	
Postnatal Day 0	21.1 10 ⁹ /L	15.4 10 ⁹ /L	124mg/L
Postnatal Day 1	19.1 10 ⁹ /L	14.8 10 ⁹ /L	207mg/L

Postnatal Day 1

- Endocrine Review
- Phased Contrast CT for adrenal: enlarged right adrenal with periadrenal fat stranding
- Blunted Short Synacthen test at 181 at 30mins, 152 at 60mins (normal cut-off 420nmol/l)

Diagnosis : Adrenalitis

Management : Tapering Dose of Steroids

Discussion: Adrenalitis

- Rare differential of abdominal pain (1:3000)
- Can lead to adrenal insufficiency
- Can be unilateral (mostly right), or bilateral
- Life threatening, 45% mortality if untreated
- Systemic infections, Hyperemesis can trigger
- Can be unilateral or bilateral
- Diagnosis: Decreased Serum Cortisol, Raised ACTH , blunted Short Synacthen Test , Phased CT
- Treatment: MDT approach , steroids

Conclusion:

- Diagnosis is challenging
- Imaging & specific blood tests are vital
- Delivery is not indicated and can precipitate Addisonian crisis