Idiopathic Ascites Following a Caesarean Section: A Case Report

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Background

- Ascites is the accumulation of fluid within the peritoneal cavity
- Benign & malignant causes include:
  - Liver failure
  - Malignancy
  - Pancreatitis
- Less common causes:
  - Urinary
  - Tuberculous
  - Chylous ascites[2]
- Commonly presents with abdominal distension & discomfort
- Ascites post caesarean section is a rare occurrence[2] with very few cases reported in the literature
  - Of those reported, an underlying cause was often found

Case

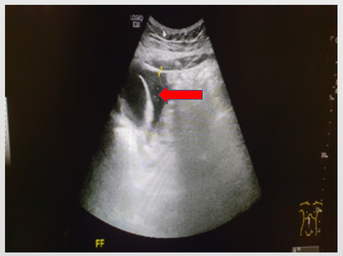
- Ms X is a 40 y/o, G12P2 who underwent an elective caesarean section (CS) at 38/40 and delivered a healthy male infant
- Antenatal risk factors included:
  - BMI of 32
  - x2 previous CS
  - X9 previous 1st trimester miscarriages
  - History of intrauterine growth restriction (IUGR)
- Post-operative period was initially uncomplicated
  - Routine post-operative analgesia required
  - Satisfactory urinary output with catheter removed 24hrs post procedure
- On day 2, Ms X developed urinary retention requiring re-catheterization
- On day 3, she developed pain in her right & left flanks & right upper quadrant prompting further investigations

Investigations

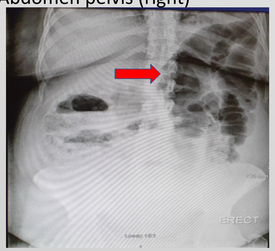
Physical Exam:
- Abdomen distended & tympanic to percussion.
- Soft with generalised tenderness on palpation

Laboratory Results:
- White cell count 16.47 x 10^6/L
- C-Reactive Protein 589.6mg/L
- Creatinine 292md/dL
- Lactate 0.6 on venous blood gas
- Amylase 11
- Liver function tests & electrolytes unremarkable

Imaging



Free Fluid surrounding liver & spleen demonstrated on both US Pelvis (left) and CT Abdomen pelvis (right)



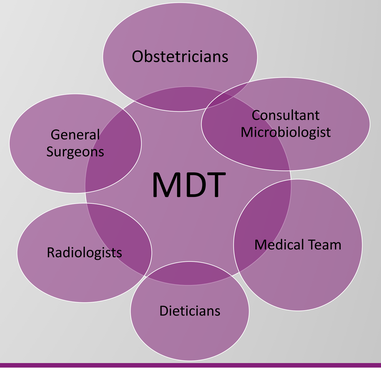
Xray Abdomen showing dilated loops of bowel with Faecal loading

Outcome

- Bowel movement 1 week after delivery
- Catheter removed 24hrs after bowel movement
- Discharged home Day 9 post-op on OTC analgesia
- Normalised blood results
- Complete resolution of symptoms and scan findings by 6 week follow-up appointment

Management

- Acute Kidney Injury→ Intravenous Fluids
- Marked Leukocytosis→ IV Co-Amoxiclav. Then IV Gentamicin + IV Tazocin
- Constipation/ Post-operative Ileus→ Total Parenteral Nutrition x48hours
- Ascites→ managed conservatively



Discussion

- Unique case as no obvious cause for ascites found:
  - No evidence of pancreatitis or malignancy on imaging & amylase within normal limits
  - No history suggestive of underlying TB
  - No underlying liver disease (normal LFT's)
  - No bladder injury or ureteric injury seen on CTAP or CT Urogram
- There are a few cases reported of Chylous ascites developing post-operatively due to compression of lymphatics by the gravid uterus or secondary to trauma to the lymphatics sustained during abdominal surgery[3]
  - These cases resolved with uterine involution
  - Potentially a mechanism for the cause of ascites in our case

Learning Points

- Importance of **MDT** when managing complex case
- **Not your typical patient!**
  - Patient needed to be able to care for her newborn therefore providing sufficient analgesia became a priority (often overlooked)

References
2. Sandhu N, Singh S. An unusual case of postoperative ascites after cesarean section. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2020 Jun 1;9(6):2635-8.
3. Kida A. Thompson, Antoun Al Khabbaz, "Incidental Chylous Ascites at the Time of Cesarean Section",*Case Reports in Obstetrics and Gynecology*, vol. 2015, Article ID 530210, 3 pages, 2015.https://doi.org/10.1155/2015/530210