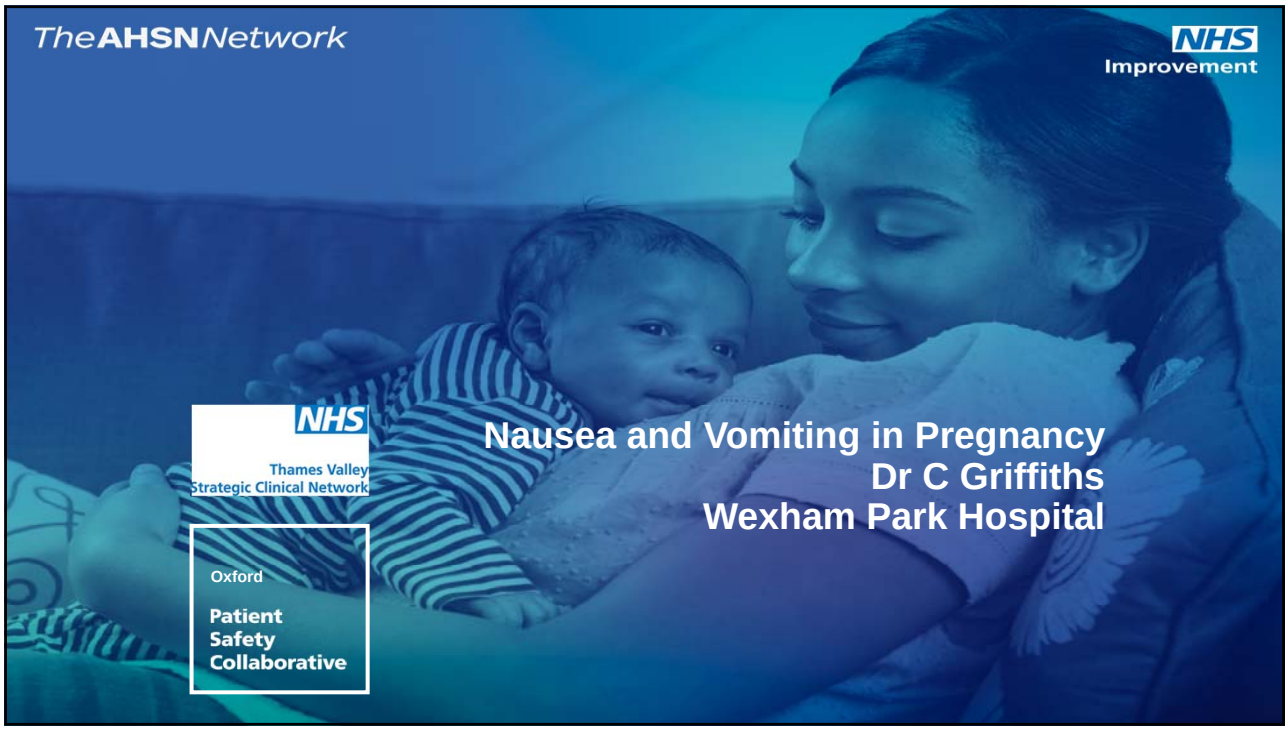


TheAHSNNetwork

NHS Improvement

Case

- 45 y/o female
- P0+1 (Miscarriage at 9 weeks in 2017)
- BMI 22

- Background: Hypothyroidism, Gestational Diabetes, Coeliac Disease

- DCDA twins – IVF Therapy

- Routine scans and care normal

Oxford Patient Safety Collaborative

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Admission 1

- Presented with Projectile vomiting and dizziness at 31+4/40
- 3-4 episodes a day for 1 week
- Reports 'black-out episodes'
  - Dizziness, feeling faint
- Good Fetal movements

- No abdominal pain
- No PV symptoms, No urinary or bowel symptoms
- No Pruritus, no SOB or chest pain

- DH – Levothyroxine 75mcg, Aspirin 75mg, Metformin 500mg
- SH – Ex Smoker

Oxford Patient Safety Collaborative

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Investigations

- Urine Dip 3+ Ketones
- Urine culture NAD
- Bloods:
  - ALT – 63
  - CRP – 7

Plan

1. Admit for monitoring
2. IV Fluids
3. IV Antiemetics
4. TEDs and VTE prophylaxis

	Admission 1
Hb	127
WBC	9.24
Plt	213
Na	135
K+	4.7
Cr	51
Ur	2.5
Bili	5
ALP	189
ALT	63
Alb	35
Urate	334
Bile Acids	3
CRP	7

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Following day

- No further vomits
- ? Rise in ALT due to dehydration and vomiting
- Growth Scan
  - Normal Liquor
  - Fetal Heart rate visualised
  - Twin 1 Cephalic, Twin 2 Breech
  - EDF Positive
- Reassuring CTG

- → Discharged Home
  - With advice to return if symptoms return or new symptoms develop

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Admission 2

- Represented 5 days later
- Now 32+2/40

- **Pc: Vomiting for 2 days + Reduced oral intake**
- Husband reported that pt had been acting 'odd' on and off

- No PV bleed, No abdominal pain
- No urinary or bowel symptoms, normal fetal movements

Investigations

- Urine dip → 4+ Ketones, 2+ Protein

Temperature	36.5
O_2 Sats	100%
RR	17
HR	72
BP	110/74

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

- Bloods:

	Admission 1 (31+4)	Admission 2 (32+2)
Hb	127	123
WBC	9.24	13.09
Plt	213	181
Na	135	134
K+	4.7	4.7
Cr	51	53
Ur	2.5	2.3
Bili	5	6
ALP	189	229
ALT	63	97
Alb	35	33
Urate	334	307
Bile Acids	3	2
CRP	7	4

Plan

1. Admit for monitoring
2. IV Fluids
3. IV Antiemetics
4. TEDs and VTE prophylaxis

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Day 2:

- Ongoing dizziness and tiredness
- No further vomiting
- Reassuring CTGs
- Rise in ALT → **US liver:**
  - Normal, No gallstones seen, 5mm polpy in the gall bladder
- BMs stable
- ?Medical Review
- ?Psych Review – due to Husband's concerns over mood

Day 3:

- Midwife reports multiple episodes of confusion
- Patient now very withdrawn (found to be sitting in her own vomit)
  - Monotonous voice, lethargic, denies hearing voices
  - AMTS 9/10 – said the year was 1918 repeatedly
  - No nystagmus, no focal neurology

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

- Blood tests – FBC: Normal

	Admission 1	Admission 2	Day 2
Bili	5	6	-
ALP	189	229	204
ALT	63	97	100
Alb	35	33	-
Urate	334	307	-
Bile Acids	3	2	2
CRP	7	4	-

- **Medical Review**
  - ECG – Sinus Rhythm
  - Full Confusion Screen - sent
  - Urine MSU – sent

- **Psych Review**
  - Presented with low mood and anxiety
  - Expressed concerns over twins and likelihood of having an emergency section
  - Worried kids may be taken away
  - Psych suggested to mobilise off ward and planned to review in 2 days

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Day 5

- Urine Dip – 3+ Ketones
- No clinical evidence of PET/Fatty Liver/OC → Medics impression *gastroenteritis*
- CTG remains reassuring

Day 6

- Feeling better but struggling to remember the day of the week
- Fetal movements normal
- Urine dip now NAD
- Negative liver screen – ANA, Mitochondiral Abs, Gastric Parietal cells, Smooth muscle abs
- **MDT Discussion**– ongoing confusion, tiredness, rise in ALT ?cause → **MRI Head**

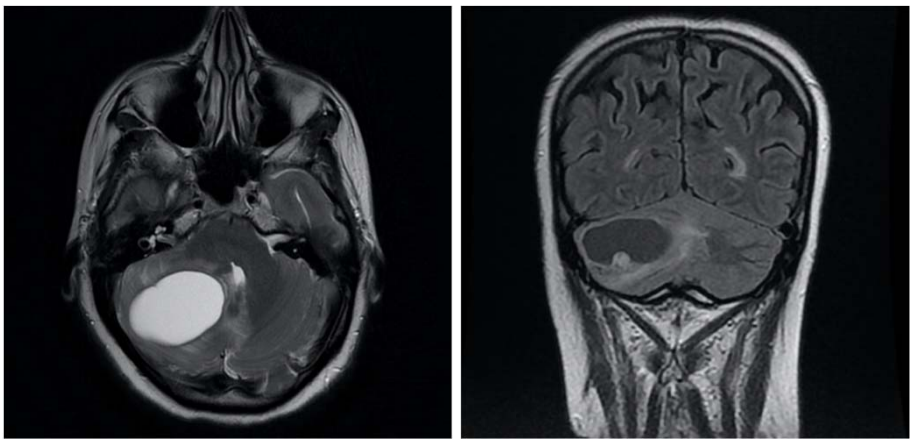
	Admission 1	Admission 2	Day 2	Day 4	Day 5	Day 6
Bili	5	6	-	4	4	4
ALP	189	229	204	220	207	231
ALT	63	97	100	152	163	178
Bile Acids	3	2	2	-	4	-
CRP	7	4	-	2	-	-

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

MRI Images



Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Day 7

- MRI Head Report
  - **Cerebellar Haemangioblastoma**
  - 4.5cm x 3 x 3.2cm cystic mass in right cerebella hemisphere
  - Seen to contain a peripheral solid nodule in its inferior cyst wall
  - No obvious intrinsic haemorrhage or nodule calcification
  - Marked surrounding vasogenic oedema
  - 4th ventricle compressed and right side of brainstem compressed
- Transferred to Neurosurgical department for MDT management with Obstetrics, Neurology and Neonatal

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Haemangioblastoma

- Tumours of vascular origin
- Grade I WHO tumours
  - Usually well circumscribed and **Benign**
  - With a highly vascular mural nodule and a peripheral cyst which has similar contents as blood plasma
- Occur in the Central Nervous System (also the kidneys, liver and pancreas)
- Account for 1-2% of all intracranial tumours
- Peak Incidence 30-60 years old
- ~25% of Posterior fossa Haemangioblastomas became symptomatic in pregnancy and required surgery
- Bulet et al. (2002) reported a case of Haemangioblastoma with worsening symptoms in the third trimester

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

- Exacerbation of symptoms in pregnancy due to:

1. Rapid expansion or engorgement of vascular bed, which is presumably the result of generalised increased in blood volume in pregnancy
2. Direct hormonal effect on tumor growth rate, mediated by hormonal receptors.
3. Several metabolic and hemodynamic changes associated with pregnancy may be responsible for increase in vascularity
4. Arterial Hypertension/Pre-eclampsia due to retention of fluid both extracellular and intracellular
5. Cardiac output rises by 20%
6. Increased trophoblastic activity → increased production of Oestrogen and Progesterone

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Clinical Presentation

1. Headaches
2. Nausea
3. Persistent Vomiting
4. Altered Mental State
5. Cerebellar dysfunction
6. Neurological deficit

- *Can often be mistaken for Hyperemesis Gravidarum (Satyarthee et al. 2016)*
- *This case difficulty to diagnose – lack of neurological deficit, diagnosis delayed due to deranged LFTs.*

Management

- Most often → SURGICAL resection

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Outcome

Delivery

- 33+6 weeks by Emergency Caesarean Section under GA
- Twins both well – required feeing assistance for 2 weeks

- Tumour **Resected**
- ***Confirmed Haemangioblastoma***

- Patient doing well!
- Ongoing management and follow up with Neurosurgeons

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

Conclusion

- Cerebellar Haemangioblastoma is a rare condition however NEEDS to be considered when persistent nausea and vomiting is present +/- neurological deficit
- Early diagnosis is key
- Treatment with resection is often curative
- Associated with good fetal and maternal outcome

Heatherwood and Wexham Park Hospitals NHS Foundation Trust

TheAHSNNetwork

NHS Improvement

References

- Bulent E, Orhan S, Volkan AM, Tayfun B, Murad B. Cerebellar haemangioblastoma in pregnancy: A case report. J Reprod Med 2002; 47: 864-866.
- Satyarthee G, Kumar S. Cerebellar Hemangioblastoma Symptomatic During Pregnancy: A Short Review. American Journal of Clinical Neurology and Neurosurgery 2016; Vol. 2, No. 1, pp. 25-28
- Karskis EJ, Tibbs AP, Lee C. cerebellar haemangioblastoma symptomatic during pregnancy. Neurosurg 1988; 22: 770-772.
- Vaquereo J, Martinez R. Progesterone receptor proteins in ceebellar hemangioblastoma. Surg Neurol 1984; 21: 99.

Heatherwood and Wexham Park Hospitals NHS Foundation Trust


The AHSN Network
NHS Improvement
NHS
Thames Valley Strategic Clinical Network
Oxford
Patient Safety Collaborative
Dr Charlotte Griffiths
Wexham Park Hospital