Pregnancy & Organ Donation

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Organ donation

- An infrequent event in hospitals in Australia
- Maternal brain death and organ donation is even rarer.
- Discuss maternal brain death case with prolonged ICU support and a successful neonatal outcome
Clinical scenario

- 42y/o female admitted to hospital with headache, vomiting and drowsiness. Called ambulance
  - GCS dropped on arrival to ED
  - CTB: intracerebral haemorrhage with midline shift and hydrocephalus
- Taken to have sub occipital craniotomy and evacuation of R) cerebellar haematoma
  - Insertion of EVD
Social and medical hx

- Social hx:
  - Lives with partner, and child from previous relationship

- Phx:
  - UTIs, migraines
  - G3P2 currently 26/40 gestation
Initial family meeting

- Aware of operation risks
- Want maternal wellbeing as priority
- Day by day assessment of mother and baby wellbeing
ICU

- **Day 0**
  - Normal ICU management
  - O&G consult
  - Ongoing monitoring
  - Family meeting regarding guarded prognosis
ICU

- Day 3
  - F&D pupils
  - Repeat CTB
    - Global hypoxic insult
  - Diabetes Insipidus
  - Family meeting with O&G
    - Possible options for foetus discussed
ICU

- Day 6: Brain death confirmed via NM scan
- What's next?
Remaining admission

- The patient remained in intensive care for a total of 33 days
- Complications:
  - Cranial wound debridement in theatre @ week 2 of admission
  - Ongoing fevers
  - Pneumonia
  - Amiocentesis @ week 5 for ongoing fevers
DonateLife referral

- AODR check and referral on day 8
- Consent completed on day 11 of admission
  - Partner comfortable to wait for weeks for a safe delivery of baby
  - Emphasised that organ donation is secondary
Organ Donation Process

- 32 weeks (6 weeks post admission) – partner & teams agree baby is safe for delivery

- Donation Workup
  - Serology/NAT completed on first day of workup
  - Regular contact with family/ICU staff by DonateLife (daily)
  - Full donation workshop completed and organs referred night prior to retrieval theatre
  - Tissue typing completed the night before retrieval theatre
Organ Donation Process

- Plan for caesarean with one theatre team – patient to remain in theatre and organ procurement with new theatre team following baby’s delivery
  - Unable to occur due to staff shortage

- All donation staff (DSNC, retrieval surgeons) in theatre team room until caesarean completed and baby in special care nursery
Outcome

- Successful delivery of baby girl
  - Admitted to NICU and discharged home to dad
- The patient was able to become a multi organ donor
Organ donation outcome

- 8 recipients benefited from the gift of a transplant
- **Heart recipient** - adult female who had some surgical complications during transplant, standard post operative stay in hospital
- **Double Lungs recipient** - adult female who recovered well post transplant, looking forward to not being reliant on oxygen.
- **Liver recipient** - adult male who was initially unwell and appeared septic. Slow improvement in hospital with a supportive family.
- **Pancreas and Left kidney** - young female who was dependent on dialysis for many years, recovered well post transplant.
- **Right kidney** - adult female quick recovery post transplant, and discharged home few days after.
- **Corneas and sclera**—were retrieved successfully and transplanted, improving the lives of 3 recipients requiring cornea/sclera transplant.
Considerations

▪ Ability to diagnose BD
  ▪ Concerns with radionuclide scan effects on unborn baby
  ▪ Staff not comfortable with clinical testing (CO2 rise)

▪ Obstetrics
  ▪ Daily review by obstetric team
  ▪ Emergency obstetrics kit by bedside for emergency LUSC if required

▪ Legal considerations
  ▪ Hospital corporate counsel was consulted
  ▪ All treatment post brain death is focused solely on allowing the baby to grow for delivery
Key elements

• **Communication** – Key focus of care was delivering a healthy baby, donation process was absolutely secondary.

• **Engagement** with all teams involved – ICU, Obstetrics, Neurosurgery, Theatre, Special Care Nursery

• **Extensive Planning** – Pre Meeting 24 hours prior to theatre with Obstetrics & Retrieval teams to discuss the process for the following day

• **Commitment** - from all stakeholders to organ donation being a part of her end of life care as she had previously consented on the AODR
Thank you!!