**Snippets from the Quarterly CRMD meeting held on 16/01/22 at TOGS Academia , Thrissur.**

51 cases of maternal deaths were discussed maintaining absolute anonymity (Cases up to March 2021, before COVID took its toll). The causes are given in the following table.

| **Cause** | **Number** |
|---|---|
| Cardiac disease | 9 |
| Suicide | 6 |
| PPH | 6 |
| Pulmonary embolism | 3 |
| COVID | 2 |
| ICH | 2 |
| AFE | 2 |
| Hypertensive disorder | 2 |
| CVT | 1 |
| Metastatic Ca ovary | 1 |
| Wernicke’s encephalopathy | 1 |
| Sepsis | 1 |
| Lupus nephritis | 1 |
| Ischemic hepatitis | 1 |

| | |
|---|---|
| Pneumonia | 1 |
| RTA | 1 |
| PAS ( Placenta accrete spectrum) | 1 |
| Ruptured ectopic | 1 |
| Pancreatitis | 1 |
| Aspiration pneumonia following LSCS | 1 |
| APH | 1 |
| Unknown | 6 |

We analysed each of these deaths and subcategorised into the following :

| **TYPE OF DELAY** | **NUMBER** |
|---|---|
| 1.Delay from the part of patient and family | 3 |
| 2.Delay in reaching the institution | 0 |
| 3.Delay after reaching the institution | 6 |
| 4.No delay identified | 21 |
| 5.Cannot comment | 21 |

| AVOIDABLE OR NOT | NUMBER |
|---|---|
| 1.Unavoidable | 19 |
| 2.Avoidable in an average medical setting | 6 |
| 3.Avoidable only in the best settings | 8 |
| 4.Cannot comment | 18 |

**Observations :** 24 year old Married for 1 yr. ANCs at a private hospital. Preterm labour pain at 34 weeks. Referred to MCH at 6pm. No H/O known illness till then. PR-92/mt clubbing cyanosis present. Delivered at 6.40 pm. 1.4kg baby. Had atonic PPH. Medical management followed by Condon Tamponade done. At 7.30pm, PR-130/mt. RR-38/mt. O2 saturation- 78%. BP - 90 systolic. Intubated, ECHO – large ASD, RV dilated RVH++. Provisional diagnosis. ASD, Eisenmenger with hypotension. Dopamine started. Next day by 1am, O2 saturation began to fall. At 5.40am patient went into asystole. Had VT. DC shock given. Resuscitation failed. Death declared at 6.45am.

**Recommendations** : A complete clinical examination in the first visit might have changed the outcome . It is very important to impress upon ourselves and our colleagues and subordinates

the importance of cardiovascular examination at least in the first visit and Cardiology help and referral to a higher centre if deemed necessary. As far as PPH is considered other weapons in our armamentarium are TVUAC( trans vaginal uterine artery clamp) and Suction cannula.

**Observations:** 26 year old Emergency LSCS for Macrosomia , baby 4.305kg. Hypothyroid, MVP with MR detected during pregnancy. CS uneventful. Pt was on NPO for 30 hours. Started on oral fluids and soft diet on 3rd post-op day, developed vomiting and abdominal distension, dyspnoea and loose stools. Discharged on day 5. On day 6 patient had dyspnoea, vomiting, distension and hypotension. She was taken to nearby hospital and from there to MCH where she arrived in a state of shock. SPO2 -60%. Vomitus- coffee coloured, gross abdominal distension. Resuscitated, started on antibiotics, USG- Pulmonary Embolism ruled out. No free fluid. By 1.20pm she had cardiac arrest. Revived, put on mechanical ventilation and Ryle's tube aspiration, chest X-Ray – bilateral lower lobe consolidation. Condition worsened. Death on 17/03/2021 at 7pm.

**Recommendations :** Anything unusual in the post op period should be evaluated. Discharge could have waited in this case as the post op period was stormy. Acute Pancreatitis is a clinical possibility. The final cause of death is Aspiration Pneumonia as per autopsy report. Other causes of abdominal distension to

be kept in mind are paralytic ileus, intestinal obstruction, perforation peritonitis, sepsis etc. The lesson learnt is : Unusual course in postop period deserves Undue attention.

**Observations :** 26 year old Married 1 year. Laparotomy for ruptured ectopic at local hospital .She had hypotension, evidence of sepsis and LV dysfunction? Stress cardiomyopathy acute pulmonary oedema and referred to a higher centre next day. On admission patient conscious oriented pulse- 162/mt, Bp- 130/80 Hg dose inotropes, intubated. She was seen by anaesthesiologist, physician. Antibiotics stepped up. Managed in ICU. Later in the evening she had bradycardia, hypotension and cardiac arrest. Revived but later she had ventricular arrythmias and further drop in BP, Cardiorespiratory arrest and expired next day at 12.55am.

**Recommendations:** Going through the case records it is clear that the bus has been missed much before laparotomy . This is a case where UPT had become positive 10 days back , serial serum Beta HCG had not shown doubling and USS had shown thickened endometrium with a serum Beta HCG of 2700 . The patient was left alone as she was asymptomatic ! PUL ( Pregnancy of unknown location ) with the above findings had clearly pointed to ectopic pregnancy which could not be picked up earlier. The lesson learnt is : We have to stick to scientific rules even when our Mind says differently.

**Observations**: 31 year old Excessive vomiting and poor intake of food from 6wks of gestation. She had generalised weakness and behavioural symptoms and was admitted in local hospital at 14wks. She developed seizures and became unresponsive and referred to MCH. She had severe respiratory distress and hypotension. Intubated and ventilated. Diagnosed irreversible brainstem dysfunction and MODS due to sepsis. FHS absent and pregnancy medically terminated. She was referred to another MCH after starting meropenem. Investigation showed elevated inflammatory markers. MRI- acute infarcts in pons, frontal region, left side of cerebellar vermis. ECHO showed global LV hypokinesia, severe LV dysfunction. Started on higher antibiotics- tracheostomy done. Serum ammonia elevated. Developed multiple episodes of seizures. Haemodialysis done. EEG showed brain death. Afterwards medical board and ethical committee decided to de- escalate treatment. Death on 03/02/2021 at 6.22am.

**Recommendations:** This could have been a clear cut case of Wernicke's encephalopathy caused due to Thiamine deficiency ( B 1) due to excessive vomiting . A simple treatment of IV Thiamine 100 mg daily for 3 – 5 days would have reverted the pathological process. It is important to supplement hyperemesis patients with Thiamine , preferably IV. The lesson learnt is : Give IV Thiamine along with or before IV Dextrose in hyperemesis , lest the little available Thiamine be utilised into anaerobic glucose – lactic acid pathway and predispose to Wernicke's encephalopathy – Korsakoff's psychosis spectrum.

**Other Recommendations :**

Under the suboptimal conditions of a COVID delivery, an experienced hand would be able to perform a safer surgery rather than the junior most. Even though the COVID deaths are few in this series, the next Quarterly analysis will cover lot more of them .

The number of Cardiac related deaths has increased in this review, a significant number is avoidable which reiterates the importance of clinical examination , to see the Woman as a whole and not the Obstetric aspects alone .

The suicide deaths also is worrisome, the striking aspect is that they are not known psychiatric patients as it used to be earlier on , but now it is the psycho socio financial stress which pushes our women into this . We have to take this up very very seriously.