SNIPPETS OF CRMD MEETING ON 26/03/2023 AT TOGS ACADEMIA THRISSUR

A total of 35 cases of 2021-2022 and 2022-23 were discussed in a confidential manner. The causes were as follows:

Covid	5
Amniotic fluid embolism	4
Cardiomyopathy (2 PPCM+1 Stress)	3
PPH atonic	3
PPH traumatic	1
Placenta previa ? accreta	1
CVT	1
HELLP (+ Pneumonia in 1 case)	2
Pulmonary embolism	1
Hypertension	1
Eclampsia (HELLP in 1 case)	2
AFLP	1
Intracranial haemorrhage	1
RHD – MS	1
Primary pulmonary hypertension	1
Drug anaphylaxis	1
Liver failure	1
Aspiration	1
AML	1
Unknown	3

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

TYPE OF DELAY	NUMBER
1.Delay in reaching the institution	5
2.Delay after reaching the institution	8
3.No delay identified	21
4.Cannot comment	1

AVOIDABLE OR NOT	NUMBER
1.Unavoidable	23
2.Avoidable in an average medical setting	4
3.Avoidable only in the best settings	7
4.Cannot comment	1

Observation: A 38 year old G3P2L2 at 38 weeks of gestation, previous 2 LSCS . Elective LSCS done at 12:20 pm, baby transverse lie, delivered with difficulty. Patient monitored in post operative ward. 6 hours later hypotension

detected with saturation fall. Managed with inotropes, volume replacement, blood transfusion etc but condition deteriorated, expired at 10:10 pm.

Recommendations: Going through the case records, Patient had severe pallor in the first centre with a BP of 90/70 . She was referred at 9: 30 pm and expired at 10:10 pm. Such patients should never be referred but to be managed at the first point of care. Think Twice before referring an actively bleeding patient because TIME IS LIFE . She was a case of previous 2 CS with a communicating Horn and this should have been noted in the previous discharge summary. During CS examine the uterine cavity, tubes and ovaries and Document the findings.

Observation: 35 year old G3P2L2 at 28^{+4} weeks ,2 FTND, LCB - 8yrs. Detected to have hypertension at 25 weeks and started on antihypertensives. 2 weeks later presented with headache and vomiting, developed seizures in the private hospital. Loading dose of MgSO4 and Labetalol given and referred to MCH. O/E Patient conscious, BP – 210/110 mm. of Hg, P/A – Uterus 28 weeks, investigations s/o HELLP syndrome. On shifting to OT for CS, developed another seizure. LSCS with sterilisation done and 810g baby delivered who was put on ventilator. She had another seizure and became hypotensive. Started on inotropes. Managed by multidisciplinary team. Developed DIC. MTP(Massive transfusion protocol) activated. Relaparotomy done next day. Subtotal hysterectomy done. Liver surface congested. CRRT(Continuous renal replacement therapy) done. Neurological status worsened. CT – Diffuse SAH with B/L Cerebellar bleed. Cardiac arrest after 5 days, death at 11:20pm.

Recommendations: This is early onset hypertensive disorder of pregnancy. Close in patient monitoring of such patients should be done from the time of diagnosis of hypertension including Haemogram, RFT, LFT and coagulation profile. Her LFT was grossly deranged at the time of admission itself. Early termination of pregnancy should also be contemplated upon in such cases . Early referral , adequate stepping up of antihypertensives and timely termination might have given a better outcome in this case.

Observation: 29 year old Primi with 6 years of infertility at 38+4 weeks of gestation with treated anemia underwent Emergency LSCS at 2:45 pm in a level

2 hospital for fetal bradycardia. Next day at 9 am, c/o backpain and pain abdomen. BP- 160/100, MgSO4 and Labetalol given, At 10 am , c/o weakness, GRBS-34. At 10:30 am, desaturated , Consulted Pulmonologist: B/L basal creps ?Pulmonary oedema , referred to higher centre. On evaluation, Patient was diagnosed to be in septic shock , severe LV dysfunction, AKI and DIC, secondary to ? HELLP / TTP. Multidisciplinary input in ICU but patient succumbed next day.

Recommendations: Going through the case records it is noted that there was gross derangement of coagulation profile and LFT in the post op period (higher centre) which we are not sure whether it was missed on admission in the first centre. Any way close monitoring in the post op period is mandatory, new onset hypertension and HELLP syndrome are not rare (AFLP is another DD) . Any unusual symptoms or signs in the post op period should be given due importance. Timely LFT estimation and essential steps can bring about better outcome in such cases. Finally patient seems to have succumbed to septic shock, which shows the importance of Hospital Infection Control and Antibiotic stewardship programs in our hospitals.

Observation A: 31 year old Primi at 37 weeks , conceived by IUI and Ovulation Induction. Placenta – gr4. LSCS on at 9:38am, after arranging blood and blood products from a private hospital. Discharged on 4th day. On day 7 patient presented with breathlessness since 11 hours. O/E, B/L basal crepitation. SPO2 – 90%, Pulse – 90, Systolic BP-190. Referred to a higher centre. On arrival there, patient was unconscious, unresponsive and desaturating. Pulse and Bp not recordable. Had seizures. ECHO: LVEF – 30%, hypokinetic LA and LV mildly dilated. Diagnosed peripartum cardiomyopathy. EEG. Abnormal. MRI screening showed hypoxic brain injury, general condition deteriorated gradually and expired on POD 14 at 11:19am.

Observation B: 35 year old G4P1L1 at 37 weeks. 1st LSCS, 8 yrs back for failed induction. LSCS from GH . Patient developed cardiac arrest while being prepared for CS (due to suspicious CTG). Crash CS done. Fresh stillborn baby delivered. Patient referred to MCH on ventilatory support and inotropes. Had 1 episode of seizure during transport. MgSO4, Phenytoin given. Patient managed in ICU and consulted cardiologist. ECHO, global hypokinesia, Severe LV dysfunction. Started on Digoxin, higher antibiotics, Levetiracetam. On day 3

developed VT reverted with Amiodarone. She had multiple fever spikes. On POD 6 at 1:25pm developed hypotension and cardiac arrest from which she could not be revived.

Observation C: 25 year old G4 P2L2A1 2FTND. LCB – 3yrs. EDC – Aug 18th. Admitted at 35w6D in MCH. MCDA twins in labour. 1st twin delivered vaginally. LSCS for 2nd twins under SAB for shoulder presentation. Intraoperative bradycardia and post – operative tachycardia and hypotension. 1unit PRBC given. Referred to another MCH. ECHO done global LV hypokinesia. Severe LV dysfunction. ? PPCM. Managed in cardiac ICU with ventilation and inotropes. Tracheostomy done. Pt developed pneumothorax. ICD kept. Developed MDR Acinetobacter sepsis and shock inspite of higher antibiotics. Expired one month later.

Recommendations: We discussed the above 3 cases in detail maintaining absolute anonymity. We had Non Obstetric assessors also with us , especially Cardiologist . The points to ponder :

In Peripartum cardiomyopathy, there is global hypokinesia. Similar ECHO picture can be seen after a cardiac arrest too.

In Stress cardiomyopathy which can be seen with any stressful situation (more common in women) causing sympathetic overload / adrenergic surge (Takotsubo cardiomyopathy), ECHO shows apical ballooning , CAG is usually normal and recovery is good

In Hypertrophic Cardiomyopathy , the degree of obstruction decides the prognosis, usually tolerated well unless severe obstruction is present

Prolactin is implicated in PPCM ; Bromocryptine is being used in PPCM treatment

Sudden unexpected changes in the hemodynamic changes of a couple of patients raised suspicion of adverse reactions to drugs like Antibiotics , Anaesthetic agents etc. You may all note that CRMD snippets reported for the first the possibility of Tranexamic acid being mistaken for Bupivacaine as they are 'Look Alike' ampoules. Later similar articles were reported from other parts of the world too. Tranexamic acid is a drug which has recently found a place in Operation theatres, in many theatres it is stored in Anaesthesia trolley itself. Let us sensitise our Anaesthesia colleagues regarding this.

Other Recommendations:

The Golden Hour after delivery is replaced by the Golden 3-4 minutes, when we have to identify the bleeding and take steps to arrest bleeding and correct hypovolemia.

TVUAC and Suction cannula should be used while transferring an atonic PPH patient who continues to bleed. The uterine artery clamp and suction cannula can be used in combination in most of the cases as the cannula helps primarily in upper segment atonicity and the clamp for lower segment bleeding. In most of the cases the bleeding may be contributed from upper and lower segments. The modified uterine artery clamps with "T"shaped tip rather than the earlier "L" shaped tip may be easier to apply especially in the absence of epidural analgesia.

LFT may be made a routine in the third trimester, at least in patients presenting with vomiting, tiredness etc. All term pregnancies with significant LFT abnormalities may be better terminated unless it is Viral Hepatitis.

Regular PIH investigations along with antihypertensives can improve the maternal and fetal outcome in hypertensive disorders.

Cardiology consultation and Echocardiography in patients with positive auscultation findings in the first visit itself.