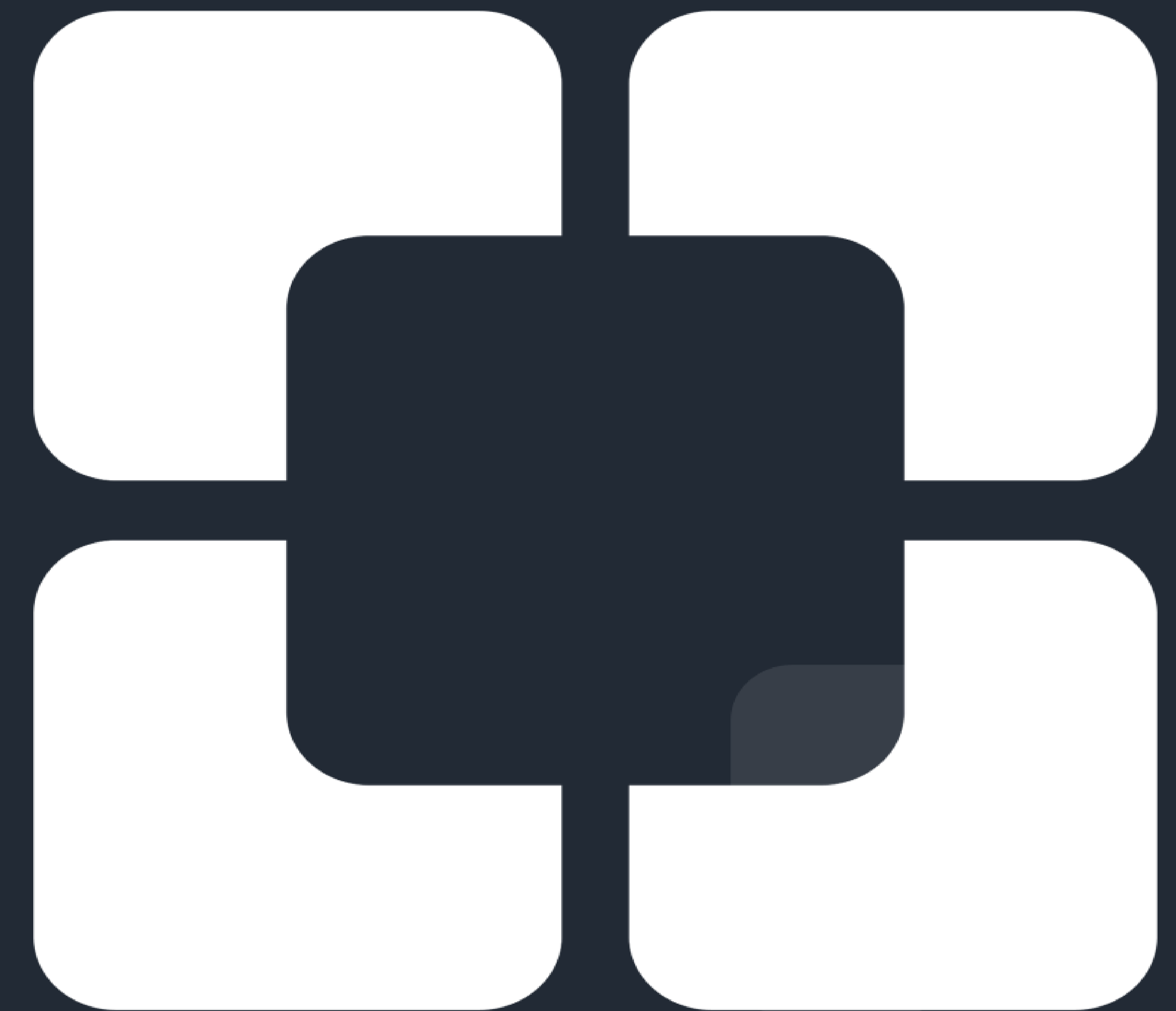


Anesthetic Considerations in a Parturient with Preeclampsia and Recent Myocardial Infarction Presenting for Cesarean Section

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- 39-year-old parturient (height: 165 cm, weight: 74 kg) G1P0
- Past medical history of chronic HTN, T2DM, asthma, sarcoidosis, OSA, GERD
- In second trimester: multiple ED visits for chest pain with unremarkable workup
- At 22 weeks 1 day GA: Elevated troponins and ST depressions noted. Underwent PCI with DES placed in OM1
- Post-PCI TTE with no RWA and LVEF of 70%



L&D Course



Source: *Cleveland Clinic Foundation*

- Admitted at 32 weeks 0 days due to preeclampsia with severe features
- Cesarean section scheduled with clopidogrel held 5 days prior and aspirin held 3 days prior
- Preoperative TEG was unremarkable but platelet aggregation test showed partial therapeutic effect of DAPT
- Cesarean section at 32 weeks 5 days gestational age done under general anesthesia
- No complications during perioperative period. Restarted aspirin on POD#1 and clopidogrel on POD#2

Anesthetic Considerations

- The management of MI in pregnancy is nearly identical to the treatment in non-pregnant patients with a few caveats (3)
- Clopidogrel is considered the safest P2Y12 inhibitor to use
- ASA, heparin, nitrates, beta-blockers are safe to use, ACE inhibitors, ARBs, statins are avoided
- ASRA neuraxial recommendations regarding antiplatelet medications are dynamic (2)

Medication	Use in patient with PAMI?	Indications	Caveats
Antenatal corticosteroids (either betamethasone or dexamethasone)	Yes.	Should be administered if delivery is expected within the next 7 days; a course consists of either betamethasone (12mg IM every 24 hours x2 doses) or dexamethasone (6mg IM every 12 hours x4 doses) and may be repeated once prior to 34 weeks gestation if preterm delivery has not occurred but is again considered imminent.	Although either drug may exert mineralocorticoid activity to a small degree, fluid retention and pulmonary edema have only been described with other contributing factors (tocolytic medications, multiple gestation, and intra-amniotic infection). A transient interval of hyperglycemia is common in diabetic patients.
Carboprost tromethamine	With Caution.	Uterotonic agent to treat postpartum hemorrhage.	May cause secondary hypertension.
Magnesium sulfate	Yes.	Administered intravenously for fetal neuroprotection prior to 32 weeks gestation, to effect seizure prophylaxis in patients with preeclampsia or eclampsia, and infrequently as a tocolytic medication.	Cardiovascular side-effects include hypotension (with bolus administration) and bradycardia.
Methylergonovine	No.	Uterotonic agent to treat postpartum hemorrhage.	Can cause coronary arterial spasm, so this should be avoided.
Oxytocin	With Caution.	Typically given to augment uterine contractility, either during labor or immediately postpartum.	Associated with hypotension and ventricular arrhythmias.
Terbutaline	No.	A beta-mimetic compound utilized intrapartum to treat uterine tachysystole (excessive contraction frequency).	It should be avoided as tachycardia and arrhythmias are common side-effects.
Tranexamic acid	No.	An antifibrinolytic agent utilized to augment hemostasis in postpartum hemorrhage.	Use is contraindicated with active thrombosis.

Source: *Tweet et al. Pregnancy-associated myocardial infarction (2020)*

References

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