

SAQ 4

A 35 yr old lady who is 30 weeks gestation, is brought to your emergency department after a witnessed cardiac arrest.

(refs : Tintanelli, Roberts and Hedges)

(a) What are the leading causes of maternal death in pregnancy ? (4 marks)

Answer :

Pulmonary embolism (thrombus)

Trauma , (homicide, MVA, suicide)

haemorrhage (placental abruption, placenta previa)

maternal cardiac disease (AMI, peripartum cardiomyopathy, dysrhythmia)

(b) List 5 airway and ventilation issues you could anticipate when attempting to intubate this lady ? (5 marks)

Answer :

Increased risk of aspiration – due to decreased lower oesophageal sphincter tone, increased abdominal pressure, decreased gastric emptying.

More oedematous airways – tongue and supraglottic airways oedematous, and more friable (therefore more likely to bleed and swell) (may need to use smaller ETT)

Decreased FRC and increased O2 consumption – develop hypoxia more quickly, less tolerant of apnoeic periods.

Mask ventilation more difficult due to low FRC, elevated diaphragms, and raised intraabdominal pressure.

Obesity relatively common in pregnancy, causing relative neck extension when supine (causing greater anterior placement of larynx). Also shorter neck in obese gravid women

Large breasts, causing difficult laryngoscopy

When ventilating, significant respiratory alkalosis should be avoided as this can cause decreased uterine blood flow.

(c) What are the indications for a perimortem caesarean section ? (1 mark)

Cardiac arrest in mother, gestational age >24 weeks (age of fetus in weeks corresponds to the distance in cm from fundus to symphysis pubis from 18-30 weeks).

Preferably within 5 minutes of arrest, up to 20 minutes – survival of infant directly related to the time elapsed from maternal arrest to delivery. Poorer neurological outcomes for child if performed > 5mins post arrest.

May benefit maternal outcome also – as it removes the aortocaval compression, and decreases abdominal pressure.

CPR should continue during and after the procedure.

Consent not required



