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unexpected cardiac conditions. This could be the way forward to deal with this issue. Achieving competencies in echocardiography are vital for the overall high-quality care of pregnant women and focused emergency echo should be a part of anaesthetic training in future.

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P.120 ASA grading in obstetrics: Too laborious to deliver?

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Introduction: The American Society of Anaesthesiologists – Physical Status (ASA -PS) grading is an internationally recognised tool used to stratify the baseline status of sick patients. The Society states that 'although pregnancy is not a disease, the parturient's physiologic state is significantly altered from when the woman is not pregnant'. In 2014, the ASA-PS was amended with added examples and further amended in October 2019¹ and December 2020² subsequently with examples relevant to the parturient state. We aimed to assess the knowledge and understanding of the latest ASA-PS grading amongst the team working in our maternity services.

Methods: Following approval from the audit department, anaesthetists and obstetricians of all grades were approached to participate in the survey. Eleven clinical scenarios included by the ASA-PS classification system were used for grading via a web-based survey tool. The assigned ASA class were then analysed and the responses compared with the correct responses using the approved examples.

Results: A total of 41 responses were obtained. Overall, the correct ASA grading calculated was 69.38%. Surprisingly, a poor percentage (< 21%) of participants from both specialities failed to correctly gauge the severity of ASA grading for uterine rupture. Within each speciality, the incorrect responses were comparable and averaged 30.6%. There was considerable variability between the correct responses within individual questions for each group ranging between 5 to 26%, averaging at 15.3%.

Discussion: The survey demonstrates significant limitations regarding the awareness of the updated ASA-PS grading within our maternity services. An example of this is the failure to appreciate the gravity of uterine rupture. This, amongst other inconsistencies is concerning and reflects an ongoing lack of knowledge and a need for further education. The inter-speciality variability in responses reflects the subjective nature of the grading system and the fluidity of clinical experience and knowledge within each department. A schematic to highlight the importance of correct ASA grading via laminated posters, formal teaching and multidisciplinary forums are currently being implemented in our delivery suite. We hope that the inclusion of speciality specific examples in the classification system will safeguard from future inconsistencies. An appropriate assignment of ASA grading will aid as an important tool in helping improve the level of patient care and ensure appropriate management throughout the care pathway.

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P.121 Acute consumptive coagulopathy in a SARS-CoV-2 positive patient

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Introduction: Evolution of disease knowledge during the COVID-19 pandemic has resulted in new clinical challenges. We present a case of acute coagulopathy secondary to consumption in a SARS-CoV-2 positive patient.

Case Report: A G6P5 35 weeks pregnant Asian woman was admitted after reporting no fetal movements for 14 h. She gave a history of lung disease, having been ventilated as a premature neonate. Her BMI was 30 kg/m² and blood group AB. She was known to be SARS-CoV-2 positive from a test eight days earlier. She had a mild cough but was otherwise asymptomatic, with observations within normal ranges. Fetal heart rate on admission had poor variability and unprovoked decelerations necessitating delivery by caesarean section. Blood results before surgery revealed a platelet count of 55x10⁹/L but on balance of risk she was consented for spinal anaesthesia. In theatre, bloods that were taken, including a thromboelastogram (TEG6, Haemonetics), revealed a coagulopathy with fibrinogen 0.7 g/L, platelets 45x10⁹/L, APTT 55.9 s, and D-dimer >20 ug/ml. There was no evidence of placental abruption, bacterial sepsis, pre-eclampsia or liver dysfunction. The baby was delivered in poor condition with an arterial pH of 6.96 and base excess of -14. Due to prolonged operating time conversion to general anaesthesia was required. The woman was transferred to intensive care and remained sedated for 36 h before returning to theatre for removal of abdominal packs. Bloods taken on admission to intensive care included IL-6 27.3 pg/mL, troponin 15.3 ng/L and lipopolysaccharide binding protein 27.0 ug/mL, all suggestive of severe COVID-19 disease and poor prognosis. She made an uneventful recovery and was discharged home 11 days later with her baby. Placental pathology revealed multiple evolving infarcts in keeping with inflammatory changes induced by COVID-19. The working diagnosis was acute consumptive coagulopathy secondary to COVID-19.

Discussion: The International Society of Thrombosis and Haemostasis recommends that all patients presenting with COVID-19 have their platelet count, D-dimers and prothrombin time measured, as derangement has been associated with worse outcome.¹ APTT and fibrinogen levels should also be measured in pregnant patients, and an individualised thromboprophylaxis programme commenced.² Those developing a consumptive coagulopathy are at high risk of venous thromboembolism and must be treated accordingly. Timing of delivery and mode of anaesthesia in such patients needs a multidisciplinary team approach. Prolonged sedation meant difficulty in monitoring for the development of a neuraxial haematoma in this patient. We suggest a low threshold for magnetic resonance imaging in such circumstances.

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P.122 Amniotic fluid embolism: A description of coagulopathy

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Introduction: Coagulopathy is a marked feature of amniotic fluid embolism (AFE), yet the pathophysiology of the coagulation failure is not well described. This is the first case report of an AFE where sequential extended tests of coagulation including all individual clotting factors, thrombin generation, D-dimers and fibrinogen were measured.

Case Report: A woman with polyhydramnios and BMI 56 kg/m² had a fourth caesarean section under combined spinal- epidural. During a difficult delivery of her baby, she reported sudden difficulty breathing followed by cardiac arrest. Return of spontaneous circulation occurred after one cycle of ALS guided resuscitation and intubation. On suspicion of AFE, tranexamic acid 1g was given, then bloods taken. ROTEM showed hypofibrinogenaemia (Fibtem A5 of 7). She had early fibrinogen concentrate 6g and repeat ROTEM tests guided further management. In total she had fibrinogen concentrate 10 g, blood 2 units, FFP 4 units and tranexamic acid 2 g. Total blood loss was 2400 mL. She was transferred to ITU and bedside ECHO showed a dilated right ventricle evidencing an embolic event. She had no end-organ damage, was extubated and returned to delivery suite the following day. Bloods taken for routine coagulation screens were stored and retrospective consent taken for D-dimer, thrombin generation and clotting factor (CF) VIII, II, IX, V, VII, X, XI, XII, XIII measurements.

Table: Coagulation results

Sample time from event	+30min	+55min	+110min
Measured blood loss	1310mL	1620mL	2400mL
ROTEM: Fibtem A5	7	10	13
ROTEM: Extem CT	91	67	58
PT (s)	13.4	14.0	13.4
APTT (s)	41.8	35	32.9
Fibrinogen (g/L)	1.6	2.1	2.4
Platelets (x10 ⁹ /L)	92	90	130
D-dimer ng/ml	282,110	267,955	220,610
Factor V (% of normal)	50%	50%	50%
CF VIII, II, IX, VII, X, XI, XII, XIII	Normal	Normal	Normal
Thrombin generation	High	High	High

Discussion: This case of AFE shows early fibrinogen deficiency with massively elevated D-dimers (normal 500 - 1000ng/mL) indicating hyperfibrinolysis. All other CF were normal except Factor V, which although reduced, was adequate for haemostasis. Thrombin generation (a functional measure of haemostasis excluding fibrinogen) was high. The extreme elevation of D-dimer, with preserved CF, in this case of AFE is almost unique. One other report measuring a limited number of

CFs showed similar results.¹ This case challenges the assumption that in AFE there is early widespread consumption of all clotting factors and suggests primary fibrinogen consumption and hyperfibrinolysis as the initial pathology. Early targeted administration of tranexamic acid and fibrinogen may halt the progression of coagulopathy and improve outcome.

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P.123 Peripartum spontaneous coronary artery dissection

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Introduction: Pregnancy-related spontaneous coronary artery dissection (P-SCAD) is a rare, but life-threatening condition and is the foremost cause of myocardial infarction associated with pregnancy.¹ We describe a case of P-SCAD following a normal vaginal delivery, diagnosed following emergency coronary angiography and treated by emergency coronary artery bypass grafting (CABG).

Case Report: A 30-year-old para 1+1 gestational diabetic with a BMI 34 kg/m² presented in labour at 38+3 weeks gestation. She had an uneventful intrapartum course with a normal vaginal delivery. 16 h postpartum she complained of jaw and chest pain. A 12-lead ECG showed inferolateral ST elevation. She was treated for an acute coronary syndrome with aspirin and GTN spray and referred to cardiology for primary PCI. Coronary angiography showed marked left main stem spontaneous dissection. Flow to the left anterior descending (LAD) artery was restored but was insufficient and the decision was made to proceed to emergency CABG. Before transfer to cardiac theatres the patient deteriorated developing pulmonary oedema and atrial flutter. An intra-aortic balloon pump was inserted and DC cardioversion attempted. She was intubated and ventilated due to hypoxia and agitation. Cardiopulmonary bypass was expedited. She underwent CABG to the obtuse marginal branch and the LAD artery. She was weaned slowly from CPB on noradrenaline, dopamine and adrenaline, the IABP remained in place. In cardiac ICU the IABP was removed and she was extubated on day 1 post-op. On day 4 she was discharged to the ward. Transthoracic echocardiogram on day 7 showed moderate to severe left ventricular impairment. The patient was discharged home 11 days post-operatively with ongoing cardiac rehabilitation and follow up from the heart failure specialist nurse and clinical psychology.

Discussion: Most cases of P-SCAD occur within the first month postpartum. It can present from the fifth week post conception to several months post-partum, particularly in women who are still breastfeeding.² It is defined as epicardial coronary artery dissection, not associated with trauma, atherosclerosis or iatrogenic injury. The mechanism is as a result of coronary artery obstruction by haematoma alone or haematoma and intimal rupture.³ The aetiology remains unclear, but has been proposed as hormonally mediated structural changes within the vascular system, alongside the cardiovascular stress associated with pregnancy and labour.² P-SCAD tends to present with ST elevation myocardial infarction, have left main stem or multi vessel involvement and impaired left ventricular systolic function. Management options include medical therapy, percutaneous coronary intervention or CABG. Compared with non-pregnancy related cases P-SCAD is associated with larger infarctions, worse LV function, congestive cardiac failure and cardiogenic shock.³