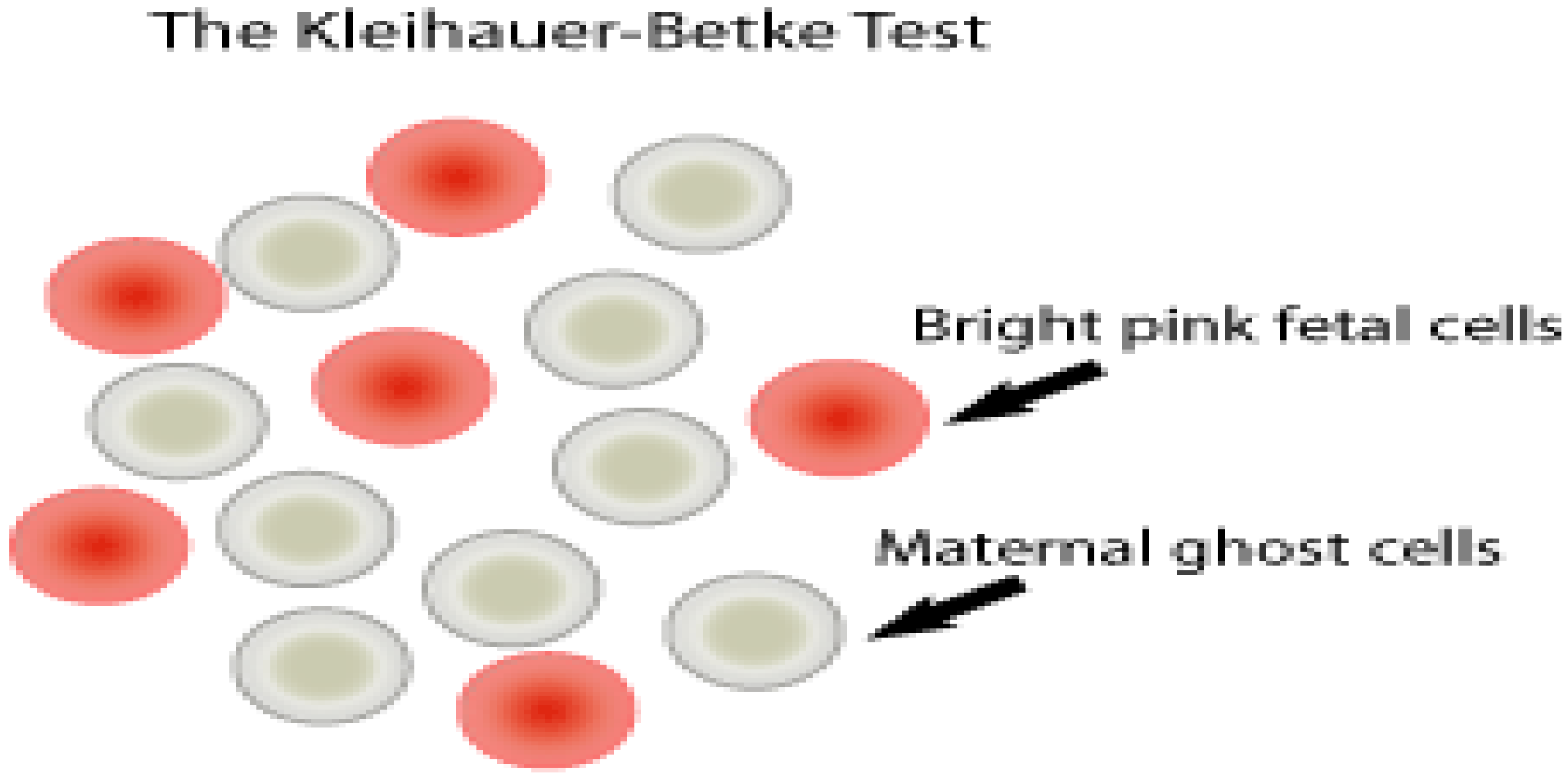
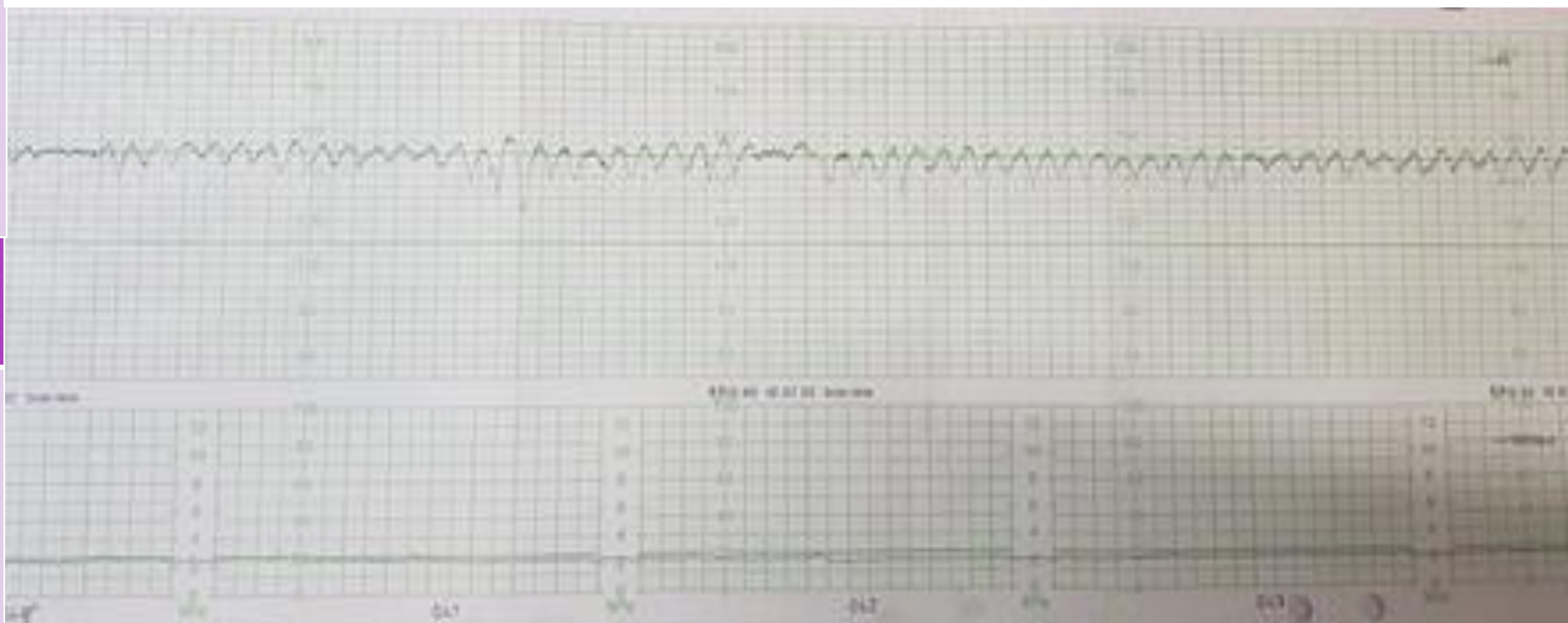


 Isle of Man	Sinusoidal pattern on CTG - A case of Fetomaternal haemorrhage with placental abruption Mrs Kavitha Sivakumar, Ms Rehana Zaman Noble’s hospital, Isle of Man		 manx care Kareil Vermeir
Case	Baby	Discussion	
Presentation 28-year-old 34weeks healthy pregnant women, Gravida 2, para 1 woman History of one previous uncomplicated vaginal delivery 2 days history of reduced fetal movements Antenatal History No major complications reported during the current pregnancy Routine antenatal screening, including an indirect Coombs test, was negative Clinical Examination: General condition stable Uterus was soft with normal tone No vaginal bleeding or amniotic fluid loss was noted Investigations: Ultrasound Scan: Normal fetal heart activity, normal amniotic fluid volume, but no observable fetal movements Cardiotocography (CTG): Low variability tracing with a sinusoidal pattern, no uterine contractions Impression: Fetal anaemia or severe fetal distress. Management: An emergency caesarean section was performed, based on the presumed diagnosis of fetal compromise.	• The newborn weighed 2390gms, looked pale • Apgar of 6/6. Cord blood gas analysis showed pH 7.24/7.37; base excess 8/6.6 mmol/L. Hb 23g/dL Diagnosed with severe anaemia • Baby transferred to the neonatal intensive care unit • Required 2U of blood transfusions • Discharged on day 17 The Kleihauer-Betke Test  	Fetomaternal Haemorrhage (FMH) : Transplacental passage of fetal erythrocytes into maternal circulation Incidence: Spontaneous massive FMH is rare but can occur at any gestational age (First TM- 6-7%, Second TM- 16%-, Third TM- 29%) Clinical Consequences: • Fetal anaemia • Hypoxic-ischemic encephalopathy • Intrauterine fetal demise • Neonatal death Most Common Presentation: Decreased or absent fetal movements Immediate Actions: • Urgent cardiotocography (CTG) • Consider middle cerebral artery (MCA) Doppler if anaemia suspected • Kleihauer-Betke test or flow cytometry to quantify FMH • Expedite delivery if fetal compromise confirmed Management Principles: • Multidisciplinary approach (Obstetrics, Neonatology, Haematology) • Prepare for potential intrauterine transfusion or neonatal resuscitation A sinusoidal pattern on CTG has been associated with several fetal conditions, including: • Severe fetal anaemia (from various causes) • Effects of certain medications, especially narcotics • Fetal asphyxia or hypoxia • Fetal infections • Fetal heart abnormalities • Fetal sleep cycles • Rhythmic movements such as fetal sucking or mouth movements	
Conclusion	Pathology		
Reduced fetal movements in the third trimester should prompt immediate evaluation. A sinusoidal CTG pattern is a critical warning sign, typically indicating fetal anaemia or hypoxia, and constitutes an obstetric emergency. Timely recognition and intervention are essential to improve fetal outcomes and may be life-saving. Fetomaternal Haemorrhage (FMH) can present solely as reduced fetal movements (RFM) and may be accompanied by a sinusoidal CTG pattern—an obstetric emergency indicative of severe fetal anaemia. Prompt recognition and urgent intervention are critical. Histopathological findings, including placental abruption and intervillous thrombosis, support the diagnosis of FMH, with possible contributory factors such as COVID-19-related placental pathology	"Pathological examination of placenta revealed features of acute placental abruption with focal subchorionic intervillous thrombosis indicating underlying fetomaternal haemorrhage(FMH). FMH was confirmed by flow cytometry, which estimated 113 mL of fetal blood in maternal blood.		
References			
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