Introducing vitamin B12 levels with a progressively abnormal blood film

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Introduction Cobalamin plays an essential role in haematopoiesis, cell metabolism, production of DNA and neuronal function. High serum concentration of cobalamin is a common but underestimated finding. The aetiology of hypercobalaminemia includes excess vitamin B12 intake, solid neoplasms, haematological malignancies, liver disease, renal failure and autoimmune diseases. Paradoxically, hypercobalaminemia can be associated with a functional B12 deficiency. A finding of high serum cobalamin should prompt an early and in-depth search for these entities to ensure a favourable prognosis.

Case presentation We present a case of a thirteen-year-old girl who presented with non-specific symptoms and an incidental finding of a raised serum cobalamin (1400 pg/mL) with initially only minor full blood count (FBC) abnormalities. Upon her assessment in the haematology clinic in OLCHC, repeat FBC results showed progressive anaemia with macrocytosis, a falling platelet count and serum cobalamin concentration of >6000 pg/mL. On repeat the cobalamin had increased to 10926 pg/mL. Urinary methylmalonic acid, plasma total homocysteine, liver and renal function were unremarkable, and she was not taking supplements or oestrogens. A bone marrow aspirate showed findings consistent with early diagnosis of Acute Myeloid Leukaemia (AML).

Conclusion This case highlights the importance of hypercobalaminemia which should be followed by the search for the cause of this finding as early diagnosis can be an important prognostic factor. A possible malignant blood disorder should be considered when serum cobalamin concentrations are above the reference range and where increases due to supplements, inflammatory, renal or liver disease have been excluded. This underscores the importance of laboratories offering numerical values (rather than reporting high results as greater than a reference range) in order to accelerate the diagnosis, potentially avoid renal biopsy and limit the exposure to steroids, which won’t improve their condition. Rather they might increase their already elevated risk of infection and other complications.

Lignocaine toxicity: a case report of adverse effect of local anaesthesia in community setting


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Introduction Lignocaine is an amide-type local anaesthetic and a class Ia antidysrhythmic agent, available since 1948. Systemic exposure to large amounts leads to adverse effects on the cardiovascular and central nervous systems (CNS). Local anaesthetics are extremely useful for providing anaesthesia and analgesia for paediatric population of all ages. Our aim is to raise awareness among the clinicians regarding the safety of administration of local anaesthetics.

Case presentation 11 weeks old baby boy brought into the Paediatric Assessment Unit (PAU) by ambulance following an episode of respiratory depression and generalised tonic clonic seizures in General Practice (GP) surgery. The patient had undergone a circumcision under local anaesthesia (brand name Xylocaine 1%) shortly prior to the event. He required basic life support to maintain airway and breathing prior to ambulance arrival. Two doses on intranasal midazolam were administered by the paramedics to abort the seizures. A Guedel airway was inserted for airway protection and 100% oxygen was supplied through the non-rebreather mask.