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2YHUFRPLQJ VSXULRXV K\SHUNDOHPLD GXH WR SODWHOHWV

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Background: e occurrence of spuriously high serum potassium levels have been associated with high platelet counts. It is due to the degranulation of platelets during clotting in vitro releasing potassium into the serum.

Case Presentation: A 69-year-old man was admitted following a fall. On admission the white cell count was 12,920/µL, hemoglobin 83 g/L and the platelet count 1,550,000/µL (150,000-450,000). Serum sodium, potassium and chloride were respectively 141, 5.8 (3.5-5.1) and 113 mmol/L respectively. Plasma sodium, potassium and chloride (on a sample collected into lithium heparin at the same time) were 141, 4.3 and 112 mmol/L, respectively. Serum creatinine was 1.5 mg/dL (0.8-1.3). e blood picture showed macrocytes and spherocytes with normal leucocytes, together with severe thrombocytosis. Bone marrow was normocellular and had increased megakaryocytes with some dysplastic forms. Platelet lakes/clumps were prominent. e myeloid series was normal and the erythroid series had reduced precursors. e trephine biopsy showed increased megakaryocytes with clustering, without signi cant brosis. JAK2 V617F mutation was detected. e patient was diagnosed to have essential thrombocythemia.

Discussion: is case illustrates the occurrence of spurious hyperkalemia associated with marked thrombocytosis. e collection of a sample into lithium heparin at the same time, allowed the laboratory to issue the true potassium level. Essential thrombocythemia is identi ed by an increased platelet count due to abnormal pluripotent stem cell proliferation resulting in excessive megakaryocyte division. e above investigations supports this diagnosis as against a secondary thrombocythemia. e clinical complications involve the sequela of abnormal platelet function, namely haemorrhage or thrombosis. Potassium measurement should be performed in a plasma sample (and not in serum) in the presence of marked thrombocytosis.

Biography

, DP 6XKDQ\DK 0DKDWKHYDQ , ZRUN DV D %LRPHGLFDO 6FLHQWLVW LQ /DQND +RVSLWDO 'LDJQRVWLF &KHPLVW\ 06& %LRPHGLFDO 6FLHQFH 8QLYHUVLW\ RI (DVW /RQGRQ 8. 0%$ 8QLYHUVLW\ RI .HODQL\D &OLQLFDO 3DWKRORJ\ 6& $6&3 6ULODQND 0HGLFDO &RXQFLO 5HJLVWHUHG 0HGLFDO 7HFKQRORJLVW

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