

CASE REPORT OF A TYPE 2 DM PATIENT WITH VITAMIN B12 DEFICIENCY ANEMIA

A 54 year-old businesswoman who has been diabetic for 6 years and had a history of PUD. She was referred following complaints of increasing hyperpigmentation of her palms, feet and old scars. She also had a boil on her back, significant weight loss, poor appetite and a slight non-productive cough.

She was transfused with 2 pints of blood a month earlier at a private hospital when her PCV was found low. She is not hypertensive. Her drug history included metformin, glimepiride, rabeprazole, antacid and hematinics.

On examination, she was obese (BMI 33.8kg/m²), pale, afebrile, anicteric and had no pedal edema. Her pulse rate was 80 beats per minutes, regular and of normal volume and the blood pressure was normal. Apart from the hyperpigmentation of her palms and feet, other systems were normal. Her HbA1c 8%, eGFR was 36.1mL/min, Serum Vitamin B12 was 109.4pg.mL (211-946), Blood count showed pancytopenia - Hb 6g/dl, MCV 97.8fL, MCH 2.6pg, MCHC 33.3g/dL, WBC 3.34 x 10⁹/L, RBC 1.84 x 10⁹/L, Platelets 137 x 10⁹/L. Her bone marrow study showed megaloblastic changes in the marrow and peripheral film. A chest radiograph showed no lesion. HIV 1& 2 were negative. Her TFT, ACTH and cortisol were normal. Investigations to exclude pernicious anemia and celiac disease could not be done for financial reasons.

She was treated as a case of vitamin B12 deficiency anemia probably metformin-induced with intramuscular hydroxycobalamin 1000ug weekly for 6 weeks, then monthly for 6 months. She presently takes daily oral B12 and is healthy. Her repeat laboratory workup showed HbA1c 6%, Hb 11.2g/dL, normal MCV and MCH, WBC, RBC and platelet counts. Serum B12 302.8pg/mL and eGFR of 109.1mL/min.