OR-015

Quadriceps tendon rupture in an end-stage renal failure patient mistaken for a soft tissue injury: A case report

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ABSTRACT

Summary: Quadriceps Tendon Rupture (QTR) incidence is low, though this entity is well established it continues to be missed by clinicians. The rarity of this pathology is further supported by a meta- analysis study done in 2007 showing that 30% out of 105 cases referred with QTR in a span of 50 years (1949-2004) revealed a diagnosis was either missed or delayed. We report a case of a 19-year-old male, with underlying end-stage renal failure (ESRF) on regular haemodialysis presented with two separate episodes of unilateral QTR within 2 years where the first injury was initially diagnosed as a simple soft tissue injury resulting in delay of treatment. The second injury occurred a year later which involved the contralateral limb with similar impression in the acute setting. ESRF patients with QTR have a correlation with the duration of dialysis and the pathophysiology is due to impaired metabolism of collagen and persistent metabolic acidosis leading to tendon weakening. In conclusion, we proposed that all patients with underlying ESRF presented with a trivial fall or minor sports injury in an acute setting, the attending clinicians must have a high index of suspicion of a QTR and a thorough physical examination must be followed by routine imaging such as a plain radiograph with an additional supplementary imaging via an ultrasonography or a magnetic resonance imaging to avoid miss diagnoses in the future.

OR-016

Forgotten but not disappeared: Erythropoiesis stimulating agent induced pure red cell aplasia

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ABSTRACT

Summary: Erythropoiesis Stimulating Agent (ESA) induced Pure Red Cell Aplasia (PRCA) is caused by the development of neutralizing antibodies against exogenous ESA, cross-reacting with endogenous erythropoietin resulting in PRCA. Here we report a case of a 45 years old gentleman who was initially referred to the Nephrology Unit in 2019 for Chronic Kidney Disease (CKD) Stage 4 with estimated Glomerular Filtration Rate (eGFR) of 24ml/min. He is a known diabetic and hypertensive who progressed to CKD stage 5 with estimated eGFR of 12ml/min. His Hb was 9.5g/dL without any ESA support hence was counseled for Continuous Ambulatory Peritoneal Dialysis (CAPD) and in January 2021 his Hb deteriorated to 6.6g/dL. Oesophagogastroduodenoscopy (OGDS) and colonoscopy did not have evidence of overt gastrointestinal bleeding. He was then commenced on s/c Epoetin α 2000 IU 2x a week from Aug 2021 till Nov 2021. In Dec 2021, his Hb reduced further to 3.0g/dL despite Epoetin α support. Repeated scopes did not reveal any gastrointestinal bleeding. His serum erythropoietin (EPO) level in Jan 2022 was undetected (normal range 3.22-31.9 mIU/mL). His ESA was then switched to s/c Epoetin β 4000 IU 3x a week. He received packed cell transfusions 2-3 weekly. A repeated serum EPO level after 3 months of Epoetin β therapy was performed and level was still undetected. A bone marrow examination was consistent with pure red cell aplasia. The patient was not on any medications known to cause marrow aplasia but had detected IgG antibodies to B-19 parvovirus and EBV. Further Epoetin β therapy was discontinued. His serum was sent for anti-EPO ELISA assay to a reference laboratory in Germany courtesy of Roche (Malaysia) and the result confirms the presence of anti-EPO antibody with a titre of 7648. ESA induced PRCA is reportedly more common in subcutaneous compared to intravenous administration. Host cell contamination, protein modifications in the manufacturing or leaching of compounds from prefilled syringes of rHuEPO have previously been implicated. With the increasing use of ESA with intravenous iron as therapy for iron deficiency anemia, clinicians need awareness of this potential rare serious adverse event. Currently there is limited access to EPO antibody testing which hinders a confirmatory diagnosis. Surveillance for PRCA should continue especially with the differing manufacturing practices.