Thrombocytopenia Caused by Iron Infusion in a Patient with End-Stage Kidney Disease

Sir,

A 60-year male patient, with dialysis-dependent End-stage Kidney Disease (ESKD), was admitted to the hospital with uncontrolled blood pressure. His blood pressure was controlled within 24 hours of admission on adjustment of anti-hypertensive medications. On evaluation of anaemia, he had iron deficiency with haemoglobin (Hb) of 8.0 g/dl, platelets, 177×10⁹/L, and transferrin saturation of 14%. Intravenous iron sucrose 100 mg infusion per haemodialysis was started. A drop in platelet count was observed just after infusing 1st dose of iron. A total of three doses of iron were infused, each on alternate day. His platelet count continued to decline to 14×10⁹/L till Day 7. On review of medications being taken by the patient, no drug was found that could cause thrombocytopenia, except for iron. Workup for the acute drop in platelets showed normal fibrinogen degradation products (FDPs), D-dimer, fibrinogen, liver function tests (LFTs), PT/APTT/INR, and lactate dehydrogenase (LDH) level. The pathogenetic explanations for iron-induced thrombocytopenia include stem cell trafficking phenomenon (adequate iron store), stem cell steal phenomenon (inadequate iron store), and an idiosyncratic phenomenon. In this case, the authors observed improvement in platelet count within 2 days of stopping intravenous iron, and platelet normalised to 209×10⁹/L within 1 month.

COMPETING INTEREST:
The authors declared no competing interest.

AUTHORS’ CONTRIBUTION:
KN, SB, AH: Contributed to literature search and manuscript writing.
All authors approved the final version of the manuscript to be published.

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Received: April 28, 2023; Revised: June 03, 2023; Accepted: June 05, 2023
DOI: https://doi.org/10.29271/jcpsp.2023.11.1337