

POLYSULFONE DIALYZER AS THE CAUSE OF THROMBOCYTOPENIA IN AN ESRD PATIENT

Subrahmanyam Nasika, Kalyana Janga, Sheldon Greenberg, Jack Hellman, Alan Astrow, Mark Sonnenschine, Kavita Sharma, Sumit Chowdhery, Maimonides Medical Center, Brooklyn, NY.

Dialyzer reactions have been very rare since the advent of new synthetic hemodialysis membranes. It is a common phenomenon to find thrombocytopenia in chronic hemodialysis(HD) patients as they have multiple co morbidities. We report a first case of isolated thrombocytopenia in a new HD patient with polysulfone dialyzer as its etiology.

A 63-year-old female with history of hypertension, CAD, CHF, and CKD presented with decompensated CHF and renal failure. She needed HD for failed diuretic therapy and worsening renal failure. Tunneled silastic catheter was placed, and she underwent HD with subsequent improvement in respiratory status.

However, post HD labs on the day of first HD revealed a significant reduction in platelet count of 77,000/cu.mm (compared to >150,000 prior to HD). The peripheral smear confirmed the diagnosis of thrombocytopenia with no other abnormal cells or cell counts. PT, aPTT, and complement levels were normal. With no signs of infection all types of heparin and medications that could cause low platelet count were stopped without any response. Both platelet antibody test and serotonin release assay were negative Patient refused bone marrow biopsy. Continuing thrombocytopenia on HD prompted us to change the polysulfone dialyzer to cellulose triacetate membrane dialyzer, which resulted in improvement in platelet count over 5days. Interestingly, the onset of thrombocytopenia coincided exactly with onset of hemodialysis.

There has been no reported case of isolated thrombocytopenia as a result of polysulfone dialyzer so far. It can be as a result of complement activation, a direct reaction to the membrane, or increased adherence to the membrane. We conclude that polysulfone dialyzer should be considered as an etiology of thrombocytopenia in HD patients, and larger observational studies are needed to address this entity.