

Herbal Teas and Thrombocytopenia: A Curious Case of Yellow Dock and Burdock-Induced Thrombocytopenia

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Background: Immune thrombocytopenia (ITP) is a bleeding disorder characterized by low platelet count $< 100\text{K}/\mu\text{l}$. We describe a case of ITP after consumption of herbal tea containing *Rumex crispus* (yellow dock) and *Arctium lappa* (burdock).

Case Description: A 41-year-old obese African-American woman with no past medical history who was sent to the ED after her primary doctor noted a platelet count of $5\text{ K}/\mu\text{l}$. The patient had been in her usual state of health 10 days prior to presentation when she consumed a 'cleansing herbal tea' containing the herbs yellow dock and burdock. 2-3 days later she noticed some skin changes (petechiae). Initial platelet count was $5\text{K}/\mu\text{l}$ and WBC was $2.5\text{K}/\mu\text{l}$. A urine drug screen, HIV, hepatitis panel, anti-C3d, ANA and COVID-19 were all negative. Bilirubin and liver function tests were normal. Peripheral smear showed large platelets but no schistocytes. On day 3, the platelet count had improved to $143\text{ K}/\mu\text{l}$, and WBC count to $7.2\text{ K}/\mu\text{l}$ after being started on dexamethasone 40 mg. She was followed up at our cancer center after discharge.

Conclusion: Thrombocytopenia associated with dietary supplements and herbal remedies, other than that associated with quinine-containing substances, has not been well documented in the literature. *Arctium lappa*, (burdock), is a plant native to Japan. It is used in Chinese medicine as a blood purifier. *R. crispus*, yellow dock, is a herb of the Polygonaceae family. Animal studies have also shown it has anti-cancer and bone protective effects. But no reports of it causing low platelets have been found. Our patient's platelet count improved after a course of glucocorticoids and the discontinuation of suspected agents. As per our literature review, no cases of immune thrombocytopenia caused by burdock and yellow dock have been previously published. Herbal medications are commonly used, yet the adverse effects are under-reported or under-recognized.