To treat or not to treat: a rare case of pseudo-thrombotic thrombocytopenic purpura in a Jehovah's Witness.

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BACKGROUND: Thrombotic thrombocytopenic purpura (TTP) is a rare microvascular occlusive disorder characterized by systemic intravascular aggregation of platelets, thrombocytopenia, and mechanical injury to red blood cells. We report a rare case of pernicious anemia presenting as TTP in a Jehovah's Witness.

CASE REPORT: A 46-year-old Jehovah's Witness female presented with epigastric pain, vomiting, and diarrhea for 2 days and fatigue and paresthesias for 4 weeks. Initial laboratory evaluation showed severe anemia and thrombocytopenia with elevated total bilirubin and lactate dehydrogenase. Peripheral blood smear showed schistocytes, macroovalocytes, and hypersegmented neutrophils. TTP was suspected and plasmapheresis was offered. The patient refused it due to her religious beliefs. Due to the presence of macroovalocytes and hypersegmented neutrophils, vitamin B12 level was checked and found to be extremely low. Anti-intrinsic factor antibodies and anti-parietal cell antibodies were also positive; hence a diagnosis of pernicious anemia was established. Treatment with intramuscular vitamin B12 was initiated, which resulted in dramatic neurologic and hematologic improvement.

DISCUSSION: Vitamin B12 deficiency can lead to elevated levels of homocysteine in the blood. Homocysteine can cause endothelial dysfunction, which can lead to formation of microvascular thrombi. Due to this phenomenon, vitamin B12 deficiency can rarely present with schistocytes and thrombocytopenia, which combined with other stigmata of vitamin B12 deficiency, can be misdiagnosed as TTP.

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