

## Do infections pose a significant risk of relapse of thrombotic thrombocytopenic purpura? A case series

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Idiopathic thrombotic thrombocytopenic purpura (iTTP) is a rare disease and its recurrences are rarer. Both laboratory (ADAMTS13 < 10%) and clinical recurrences of iTTP have been associated with paucisymptomatic or complicated episodes of CMV and HSV, mononucleosis, tuberculosis, urinary tract infections and SARS-CoV2 infection. We report a series of 4 patients with iTTP, with a history of infections during clinical remission. Case 1: 33-yo man diagnosed with iTTP in June 2016, treated with steroid and PEX with complete remission. On April 2017 the patient had laryngitis successfully treated. In February 2018 the patient had pharyngitis successfully treated. Case 2: 55-yo man diagnosed with iTTP in May 2020, treated with Caplacizumab and PEX with clinical remission. In October 2020, the patient had a subcutaneous abscess from an infection of hernia mesh, for which he was successfully treated. During hospitalization, the patient had a clinical and laboratory relapse of iTTP, treated with Caplacizumab + PEX and Rituximab, with the achievement of clinical remission. Case 3: 52-yo woman diagnosed with iTTP in September 2019, treated with steroids, Rituximab, FFP and PEX with complete remission. In September 2021 the patient had SARS-CoV2 infection, in the course of which the blood count and ADAMTS13 levels remained normal. Case 4: 43-yo woman diagnosed with iTTP in March 1998, treated with steroid, immunosuppressants and FFP with complete hematological remission. At follow-up ADAMTS13 was persistently < 50% with normal FBC. In February 2022 the patient had pneumonia successfully treated. During the hospital stay and during follow up, ADAMTS13 values remained stable. Limited to the rarity of the disease, the real-life data collected do not show a marked tendency for iTTP patients to relapse within the course of infections. This is in contrast to the available literature, according to which activation of the immune system could trigger the production of autoantibodies.

### Biography

Claudia Cammarata is currently a first-year resident in haematology since 2021 at the University of Palermo. She completed her medical studies at the University of Palermo in 2021. The main research field is haemophilia, but she is also interested in other clinical research on various hematological diseases. He is a member of several Italian societies such as SIE and Siset)