

## The importance of PET in fever of unknown origin: a rare case of splenic tuberculosis

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Solitary splenic tuberculosis is a rare disease and there have been very few cases in the literature. It is mainly encountered in patients who have an immunocompromised state but not necessarily. It can occur with a myriad of non-specific presentations, making it difficult to diagnose. Here we report the case of a 17-year-old immunocompetent young man admitted to our internal medicine unit for fever and generalized abdominal pain. She arrives in hospital for persistent fever for about 15 days (Tc max 39.0° C). Patient exhibits a negative nasopharyngeal swab result for SARS-COV 2. Previous infection with EBV and CMV. He performed haematochemical tests, blood cultures at peak fever, abdominal ultrasound showing slight splenomegaly and inguinal lymphadenomegaly and haematological examination which recommended surgical examination for lymph node exegesis. He is hospitalized for diagnosis and appropriate treatment. Confirmatory ultrasound shows splenomegaly from computed tomography (CT) of the abdomen that highlights spleen size increased at inhomogeneous density due to the presence of multiple contextual shaded hypo dense areoles ranging in size

from a few millimeters to about 9 mm the largest, better in the venous phase with lymph node micron dulia of the mesenteric fan. The centimetre lymph node elements in the bilateral inguinal area are considered unsuitable for surgical excision. There is also a very thin fluid flap in the pelvic excavation. The search for Brucella, CMV DNA, Antileishmania, Coxsakie, parvovirus and adenovirus is all negative. The PET examination shows numerous areas of focal hypercaptation of the radiopharmaceutical in the context of the spleen with inversion of the hepato-splenic uptake index (SUV max spleen up to 8.9). He tested positive for Quantiferon, practiced gastric aspirate at another hospital with evidence of M. tuberculosis responder to Imipenem and cilastine and rifampicin. The patient showed a noticeable improvement in ant tuberculosis therapy. This is a very rare phenomenon, especially in an immunocompetent patient and, therefore, it is very important to keep it in the list of causes of ND fever and shows how important the role of the PET exam is in identifying the inflammatory outbreak.