HEPATOSPLENIC BARTONELLOSIS.
RARE CAUSE OF FEVER OF UNKNOWN ORIGIN

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Introduction

- Fever of unknown origin is a diagnostic challenge in daily practice. Although most underlying causes are common, with atypical manifestations, when the investigation doesn’t lead to an obvious diagnosis, infrequent causes should be considered.
- Hepatosplenic bartonellosis is an atypical and rare presentation of the cat-scratch disease (5-14%), and it often presents with more severe manifestations and a prolonged febrile syndrome (> 2 weeks), asthenia, articulargia, hepatosplenomegaly, and other, resulting from the dissemination of the microorganism.
- During the intraerytrocitic stage of the infection by Bartonella henselae, it can replicate in large amounts in hypervascularised organs, namely the liver and spleen, resulting in the rare and challenging to treat, hepatosplenic bartonellosis.

Case Report

- 9 year old boy
- Previously healthy
- Immunization program updated
- Lived in an urban region with potable water
- No recent travel history
- No tick bite history
- No skin or mucous membranes alterations; no heart murmurs or respiratory abnormalities; normal abdomen
- No night sweats or chills
- No arthralgia
- No history of weight or appetite loss
- No meningeal signs or symptoms
- No nausea or vomiting
- No anorexia
- No vomiting
- No recent fever
- No recent weight gain
- No recent history of inflammation
- No recent history of recurrent respiratory symptoms

Physical examination

- Submandibular lymphadenopathy (1,2cm)
- No inflammatory signs, mobile and painless
- Bilateral cervical adenopathies (< 1 cm)
- FEVER
  - Hemodynamically stable; no skin or mucous membranes alterations; no heart murmurs or respiratory abnormalities; normal abdomen

Hypothesis of atypical Kawasaki disease

Immunoglobulin 2g/Kg + acetylsalicylic acid

Evaluations: NO ECHOGRAPHIC OR CLINICAL IMPROVEMENT

- Abdominal ultrasound: MULTIPLE HYPOECHOIC NODULES (5-13 mm) in both HEPATIC LOBES AND SPLEEN; small mesenteric lymphadenopathies
- Angio-CT and Magnetic resonance imaging: nodules with contrast caption suggesting hypervascularization (Fig.1)

Clinical Presentation at the Paediatric Infectious Diseases Unit

8 WEEK HISTORY OF FEVER
- max. 38.5°C
- no particular pattern
- responded to anti-pyretics temporarily
  - Multiple visits to their local emergency department with one diagnosis of Mycoplasma pneumoniae infection
  - 5 days of azithromycin treatment with no resolution

Relevant workup – first 5 days in the ward

- Haemoglobin 11.6 g/dL
- Leucocytes 12.000/µL (10% monocytes)
- C reactive protein 114,1 mg/L
- Sedimentation rate 10 mm/h
- Cervical ultrasound: three SOLID HYPOECHOIC HETEROGENEOUS NODULES (15,3mm)
- Echocardiogram: DILATED LEFT CORONARY ARTERY (Z-SCORE 2,36)

Day 17 in the ward

- No history of weight or appetite loss
- No night sweats or chills
- No meningeal signs or symptoms
- No articulargia
- No skin or mucous membranes alterations
- No respiratory, genito-urinary or gastrointestinal symptoms

- Laparotomy with excisional hepatic biopsy: macroscopic nodules were evident (Fig.2-3)

- Pathology: FIBROGRANULOMATOUS reaction with abscess; no evidence of malignancy
- Polymerase Chain Reaction: Positive for Bartonella henselae
- Serology IgM and IgG Bartonella spp. positive

- Rifampicin and Ciprofloxacin - 6 week
- Resolved fever, hepatosplenic and ganglionar nodules; echocardiogram and analytical inflammatory markers were normal

Discussion

- Fever of unknown origin can have different etiologies, and the differential diagnosis is essential, namely when a neoplasm is suspected;
- Although rare, ganglionar and hepatosplenic bartonellosis should be suspected if the clinical presentation and epidemiology suggests it;
- In this clinical case, the echographic finding of dilated coronary arteries delayed the diagnosis, showing that the anamnesis is key to clinical investigation.