**HEPATITIS FOLLOWED BY MEDULLARY HYPOPLASIA WAS LEPTOSPIRA THE CULPRIT?**

**BACKGROUND**
- Leptospirosis is a widespread zoonosis.
- It is an underreported disease. A modeling exercise by the World Health Organization's Leptospirosis Burden Epidemiology Group estimated that there were 873,000 cases worldwide annually with 48,600 deaths.
- In Portugal, between 2009 and 2012, there were 120 notified cases in the general population. Only 1 of these in the age group under 15 years of age.
- Various mammals are natural hosts. Humans are infected incidentally after animal or environmental exposure.
- Most cases are mild and self-limited or subclinical, while some are severe and potentially fatal.
- Pancytopenia has been reported as a rare presentation of severe leptospirosis in adult patients.

**CLINICAL CASE**

**Hepatitis**
- 12-year-old healthy boy
- Fever
- Myalgias
- Nonproductive cough

**Medullary Hypoplasia**
- Jaundice and choluria
- Week 0
- Week 2
- Week 4
- Week 6
- Week 8

**Hepatitis**
- Haemoglobin 14.5 g/dL
- WBC 5.80x10^9/L
- Platelets 194x10^9/L
- Sedimentation rate 2 mm/h
- C-reactive protein 0.6 mg/dL

**Medullary Hypoplasia**
- RBC 3.59x10^12/L; Haemoglobin 10.7 g/dL; MCV 82.1 fL
- Reticulocytes 118.80x10^9/L (3.31 %)
- Leucocytes 3.10x10^9/L - neutrophils 400/μl (36.31%);
- lymphocytes 570/μl (43.52%)
- Platelets 61x10^9/L

**DISCUSSION AND CONCLUSIONS**
- Although pancytopenia has been reported as a rare presentation of severe acute leptospirosis in adults, our patient is more likely to have presented an hepatitis-associated medullary hypoplasia. Hepatitis-associated medullary hypoplasia is an uncommon but well recognized immunological mediated marrow failure that follows an episode of acute hepatitis. It occurs most frequently in male children and the onset of syndrome usually takes two to three months after acute hepatitis.
- A concurrent parvovirus B19 infection may also have been implicated in both, hepatitis and hepatitis-associated medullary hypoplasia. Parvovirus B19 is an underrecognized hematopoietic virus, which is well documented as an offending agent of hepatitis-associated medullary hypoplasia. In our immunocompetent patient, leptospirosis may have favoured the development of parvovirus' infection manifestations.

**REFERENCES**

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