

When fever goes on...

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A 47 years old white man was admitted because of irregular fever with chill (started 10 days before), with ***general malaise and no other relevant clinical symptom.***

MEDICAL HISTORY

On May 2007 ***Evans Syndrome*** diagnosis
autoimmune haemolytic anaemia
immune-mediated thrombocytopenia (he was **splenectomised!**)
hypogammaglobulinemia (as CVID)

He has never smoked
He works as a clerk
He does not use drug or illicit drugs
No foreign travel
No pet at home

Cervical adenopathy
(<1 cm)

Chest :
Resonant to
percussion
Both lungs clear to
auscultation

Vital signs :
TC 39.6° C
HR 100 beats per min
BP 100/60 mmHg
RR 16 breaths per
min ; he was pale with
scleral icterus.
SpO₂ 99% (Fi O₂
21%)

PHYSICAL EXAMINATION



**Neurological
examination**
No focal sensory
or motory deficit.
No neck stiffness

Heart :
ECG Sinus Rhythm,
normal PR, QRS
and QT

Abdomen : no
obesity
no tenderness to
palpation, mild
hepatomegaly

No edema
No cutaneous
lesions

WBC (4.000-8.000/ μ L)	8200
RBC (4.500.000-6.300.000/ μ L)	2910000
Reticolociti (0.5-2%)	2
Hb (14-18 g/dL)	9
PLT (140.000-440.000/ μ L)	79000
Bilirubin (0.7-1.1 mg/dl) – Indirect	1.4 - 1
Haptoglobin (30-400 g/dl)	2
LDH (60-180 UI/L)	387
IG G (598-1476 mg/dl)	520
IG A (63-645 mg/dl)	8
C3 (70-180 mg/dl)	43
PCR (<0.5 mg/dl)	15
Coombs direct/indirect	pos/pos
Ferritin (30-400 ng/mL)	1340



- ★ blood (4), urine, sputum, stool cultures
 - ★ *pharynx swab*
 - ★ *CMV-DNA - EBV-DNA*
 - ★ *HIV- RNA - HCV-RNA – HBsAg*
 - ★ *Legionella urinary antigen*
 - ★ *TB Interferon assay*
 - ★ *Aspergillus antigen*
-
- ★ *Chest x-ray : normal*
 - ★ *CT TB scan : normal*
 - ★ *echocardiography : normal*

NEGATIVES



What are your hypotheses?

~~Infectious disease~~

Evans syndrome relapse

Therapy

- prednisolone i.v.
- IVIG 2 g/kg
- ceftriaxone i.v.



Three weeks later....

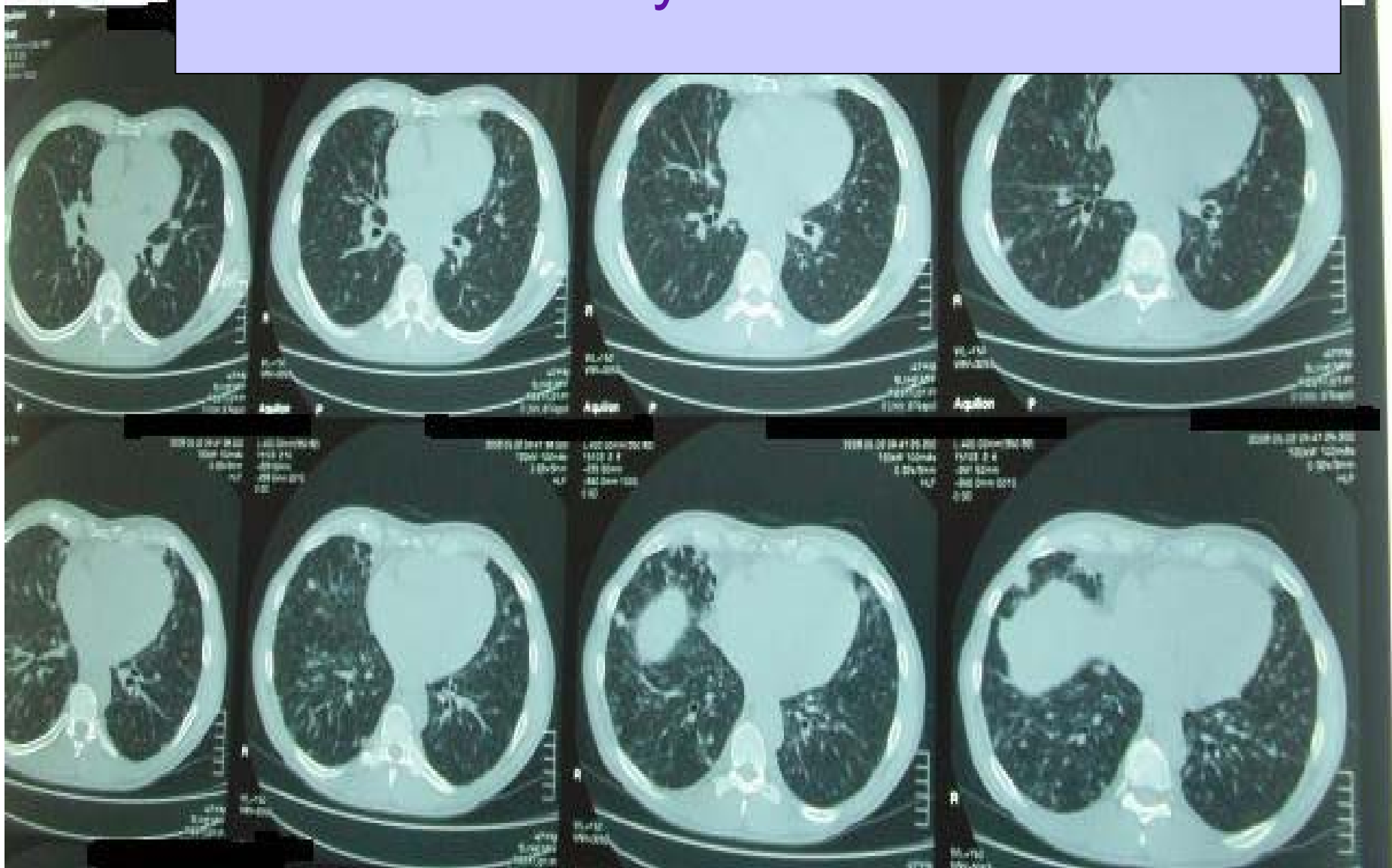
during steroid therapy



persistent fever, no relevant symptom

WBC (4.000-8.000/ μ L)	18000
Mon (1-10%)	20,00%
RBC (4.500.000-6.300.000/ μ L)	1800000
Hb (14-18 g/dL)	6
PLT (140.000-440.000/ μ L)	72000
GOT (30-40 UI/L)	70
GPT (30-40 UI/L)	60
Bilirubin (0.7-1.1 mg/dl) – Indirect	3.4 – 2
LDH (60-180 UI/L)	612
IG G (598-1476 mg/dl)	320
PCR (<0.5 mg/dl)	33
Coombs direct/indirect	pos/pos

What do you think about?



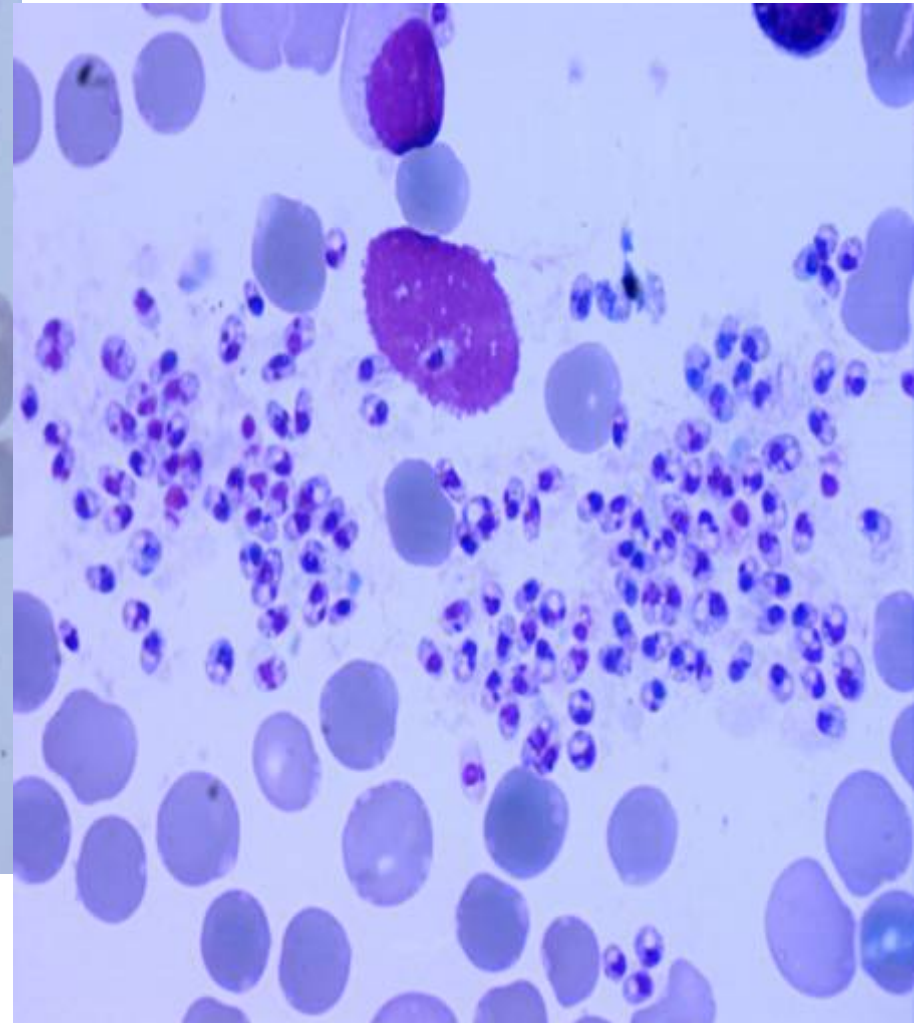
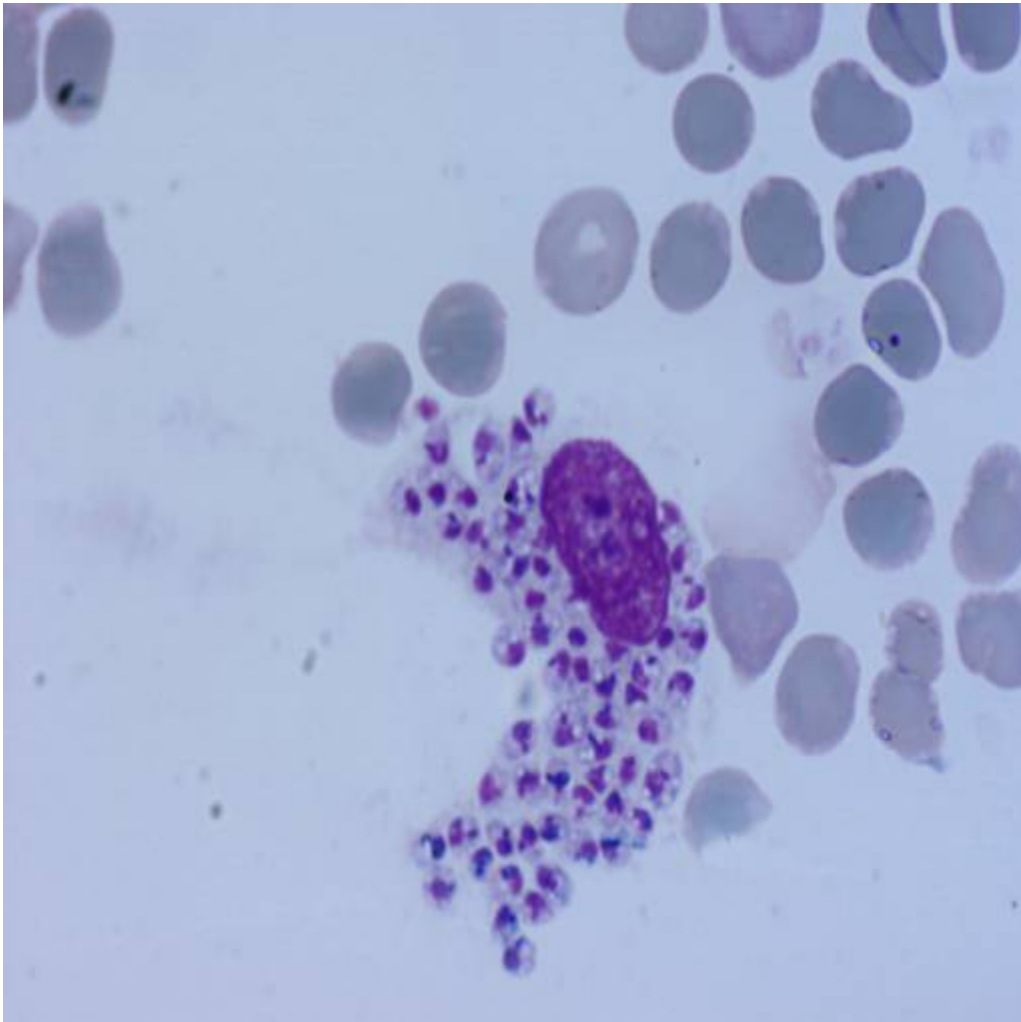
After one week the patient remained feverish, but asymptomatic. We obtained just mild improvement of anaemia (Hb 9 g/dl).

WHAT TO DO?

**BONE MARROW
BIOPSY**



Leishmania amastigotes, inside and outside the hystiocytes

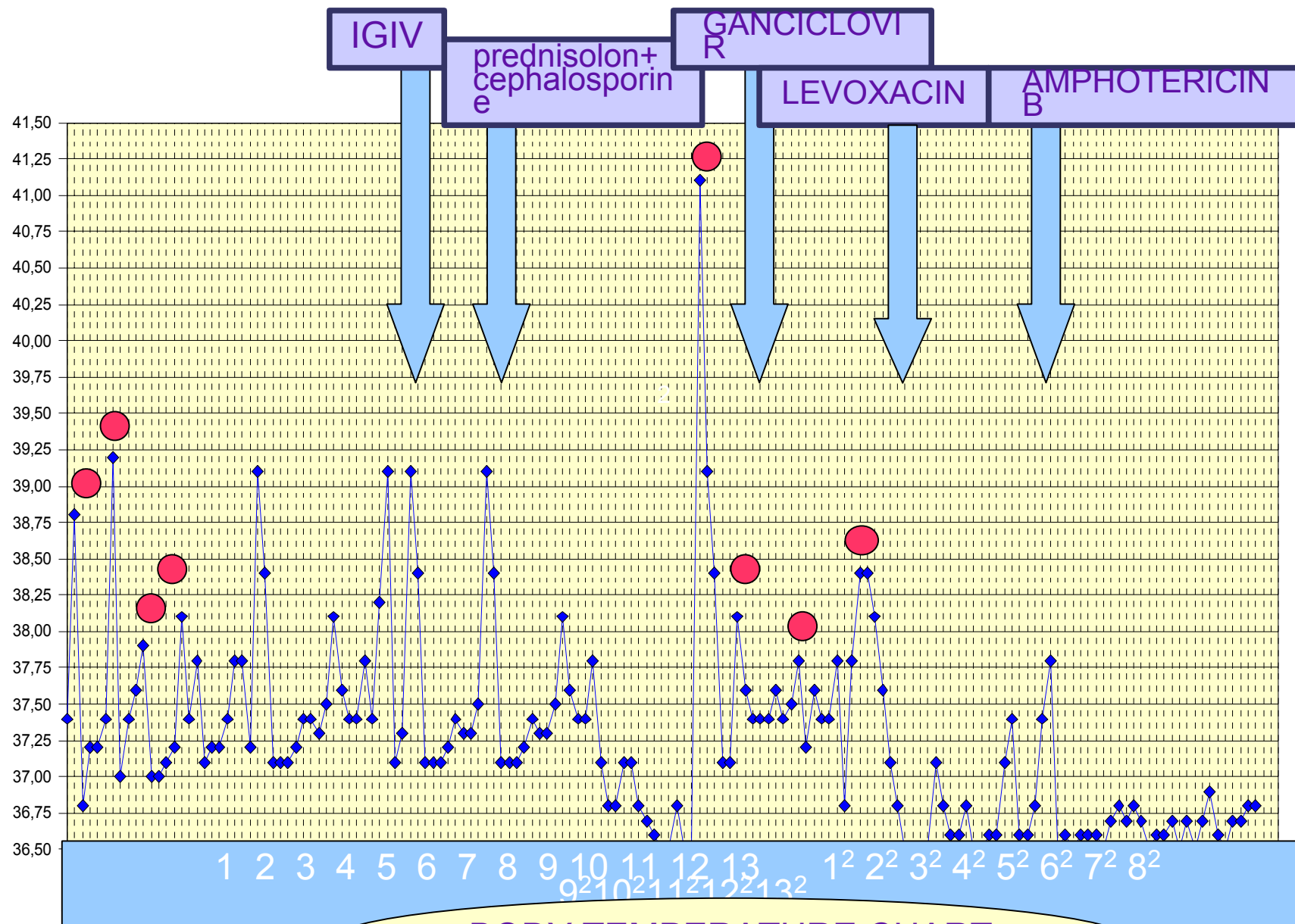


Leishmania infantum was found in bone marrow culture

VISCERAL LEISHMANIASIS

management and outcome

- ★ Liposomal amphotericin B was successful.
- Ganciclovir treatment was completed , with CMV DNA negative after 3 months.
- ★ 15 days, six months and one year later, the patient repeated bone marrow biopsy : Leishmania wasn't found



BODY TEMPERATURE CHART

● blood culture

Fever had good but short reponse to paracetamol administration

visceral Leishmaniasis with atypical presentation

- ★ Fever
- ★ Splenomegaly
- ★ Hypergammaglobulinemia
- ★ Weight loss
- ★ Hepatomegaly
- ★ Lymphadenopathy
- ★ Pancytopenia

CONCLUSION

- ✦ Visceral Leishmaniasis and systemic CMV infection in a splenectomised and immunocompromised patient with Evans Syndrome
- ✦ Steroid therapy played a leading role in viral spread
- ✦ Autoimmune cytopenia as an expression of infectious diseases
- ✦ Opportunistic infection has to be suspected in fever of unknown origin
- ✦ Leishmania is still endemic in Mediterranean countries

