A 37-year-old man with fever and acute diarrhea

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SPAIN
A 37 year-old Spanish male was admitted to our hospital because of fever and acute diarrhea.

• **Medical History:**
  - Transsexual under hormonal treatment for 2 months.

• **Current Medications:**
  - Cyproterone and estradiol twice a day.
  - No known drug allergies.

• **Baseline Situation:**
  - Independent for all activities of daily living.
  - 10 pack-year smoker and regular cannabis user. The patient denied use of others illicit drugs.
  - Sexually active. Admitted unprotected sex.
10-day history of:
- Fever up to 39°C mainly in the evening without shivering.
- Non-bloody and non-mucoid diarrhea. No symptoms of proctitis or rectal tenesmus.

Prior to this admission, he had insidious symptoms consisting of malaise, weight loss and anorexia over a period of 2 months.

He was unemployed, lived in an urban area and denied contact with animals or unpasteurised foods.

He hadn’t travelled abroad.
**General appearance**
Alert
Ill-appearing

**Vital signs**
Hemodynamically stable
Eupneic breathing ambient air
Temperature 38.7°C
Weight 59.6 kg
Body-mass index 17.4.

**Cardiopulmonary auscultation**
Decrease in vesicular murmur in both pulmonary apexes

**Abdominal examination**
The abdomen was soft and minimally tender, in left upper quadrant a mild splenomegaly was noted; no lymphadenopathies were evident.
# Clinical Course

## On admission

- Microbiological initial samples taken included **blood, urine, sputum, faeces and serology**

- **Smear description:** low platelet and lymphocytes count. Absence of blasts.

<table>
<thead>
<tr>
<th>Laboratory Data</th>
<th>On admission</th>
<th>Reference Range, Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin (g/dl)</td>
<td>8</td>
<td>13.0 - 17.5</td>
</tr>
<tr>
<td>White-cell count (per mm³)</td>
<td>1020</td>
<td>4000-11000</td>
</tr>
<tr>
<td>Neutrophils (per mm³)</td>
<td>816</td>
<td>1700-7500</td>
</tr>
<tr>
<td>Lymphocytes (per mm³)</td>
<td>121</td>
<td>1000-3500</td>
</tr>
<tr>
<td>Platelets (per mm³)</td>
<td>36000</td>
<td>140000 – 450000</td>
</tr>
<tr>
<td>C-reactive protein (mg/l)</td>
<td>21</td>
<td>&lt; 5.00</td>
</tr>
<tr>
<td>LDH (U/l)</td>
<td>1010</td>
<td>230-460</td>
</tr>
<tr>
<td>Albumin (g/dl)</td>
<td>2,2</td>
<td>3.5-5.0</td>
</tr>
</tbody>
</table>
Clinical Course

On admission

**Image 1.** Multiple lung lesions (cysts?) in both upper lobes

**Image 2.** Splenomegaly, several splenic nodules and intraperitoneal lymphadenopathies.
Differential Diagnosis: To SUM UP

Epidemiology
- Unprotected Sex

Clinical Presentation
- Fever
- Acute diarrhea
- Weight loss

Complementary Tests
- Splenomegaly, nodules and adenopathies
- Lung lesions
- Pancytopenia
What are the main differential diagnosis?
1. Tuberculosis
2. Leishmania
3. Metastatic disease
4. HIV infection
5. Linfoma
Clinical Course

Day 2

HIV blood test: POSITIVE
Clinical Course

Bone marrow biopsy
Clinical Course

Day 4

- **HIV blood test:** POSITIVE (CONFIRMATION)
- **CD4 count:** 2 cells/mm³
- **Viral load:** 135795 copies/ml
- **HIV Drug-resistance testing:** no evidence of resistance mutations.

Day 5

- **Stool culture:** *Campylobacter coli*
- **Intestinal parasites and mycobacteria:** negative.
- **Cryptosporidium stained:** negative.
- **Serum galactomannan antigen:** negative.
- **Serologic test (Syphilis, Cytomegalovirus, Epstein-Barr and Hepatitis Virus):** negative
- **Clostridium difficile toxin PCR:** negative.
- **Blood, sputum and urine cultures:** (including mycobacteria assessment) negative.
What about pulmonary lesions?

- Asymptomatic patient regarding respiratory system.
What it’s causing lung lesions?
1. Mycobacterial infection
2. Leishmania
3. Kaposi's sarcoma
4. Nocardia
5. Aspergillus spp.
Day 17

Clinical Course

- **Bronchoscopy**
  - Ziehl Neelsen and *Pneumocystis jirovecii* stainings: negative.
  - BAL’s culture (bacterial, mycobacterial, fungal and parasitic infection): negative.
  - Serum galactomannan antigen: negative.

- **Bronchial mucosal biopsy**
Collection of fungal septate hyphaes without invasion through the underlying mucosa
Diagnosis

Naive HIV infection (Stage B3) and visceral leishmaniasis.
Acute diarrhea due to *Campylobacter coli* infection.
Aspergilloma.
Treatment

• Visceral leishmaniasis: Liposomal amphotericin B 3 mg/kg on days 1 to 5, 10, 17, 24, 31, 38. Later, secondary prophylaxis.

• HIV: elvitegravir + cobicistat + emtricitabine + tenofovir.

• Campylobacter coli: azithromycin 500mg 5 days.

• Primary prophylaxis for *Pneumocystis jirovecii*: Trimethoprim-sulfamethoxazole.
Follow-up

• After 37 days of hospitalization, he was discharged.
• The patient showed a good clinical and radiologic outcome.

**Image 1.** Reduction of pulmonary lesions.

**Image 2.** Reduction of both size and number of spleen nodules and intraperitoneal lymphadenopathies.
Follow-up: 3 months later,…

• He presented again malaise, weight loss, fever and epigastric pain.

• He admitted not taking antiretroviral drugs regularly.

**Readmission**

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<td>White-cell count (per mm³)</td>
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<tr>
<td>Platelets (per mm³)</td>
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CD4 count: 15 cells/mm³
Viral load: 42605 copies/ml
New drug-resistance testing: no evidence of resistance mutations.
New abdomen CT

Confluent splenic nodules (apparently good radiological evolution)

Image

New bone marrow

Some empty and large macrophages

Gastroscopy

Normal appearance

Gastric mucosal biopsy: Leishmaniasis
Optimization of treatment

• Liposomal amphotericin B was reintroduced.

• We insisted on strict compliance with HIV treatment.
Definitive Diagnosis

• Probable recurrence of visceral leishmaniasis with involvement of gastrointestinal system.
Take Home Messages

• In a patient with fever, malaise, weight loss and pancytopenia, leishmaniasis should be considered into differential diagnosis.

• Viceral leishmaniasis/HIV coinfected patients can present with atypical organ involvement such as the gastrointestinal system.

• Treatment of visceral leishmaniasis/HIV co-infected patients is less effective than in HIV-negative patients: relapses are frequent and CD4+ counts can remain persistently low (specially if they were <200 cells/mm³) despite taking secondary profilaxis.

Thanks!