



# ESIM Case Presentation

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# Case introduction

- A 26-year-old man without a previous medical history.
- On admission: one week history of fever
- ( $>38^{\circ}\text{C}$ ), malaise, dry cough and myalgias.
- He had been for summer holidays to a rural area near Athens.

# Physical examination

- Normal respiratory sounds
- Normal x-ray
- Blood pressure: 100/70 mmHg
- Temperature: 38.9 °C
- Pulse oxymetry: 93%
- Heart rate: 82 bpm
- A **maculopapular exanthema** was noted on trunk and extremities.

**Figure 1.** Maculopapular exanthema on the patient's right foot.



# Laboratory examination

- Ht 42.1%, Hemoglobin 13.8 g/dL, WBC count 6,960/ $\mu$ L (81% neutrophils, 12% lymphocytes, 7% monocytes) and PLTs 90.000/ $\mu$ L
- Creatinine 2.3 mg/dL
- Na 128 mmol/l
- AST 104 IU/L
- ALT 76 IU/L
- CPK 1100 IU/L
- LDH 502 IU/L
- CRP 27.9 mg/dL

PT 16 sec, INR 1.41, aPTT 48 sec, fibrinogen 130 mg/dL , D-dimers 980 $\mu$ g/dL .

# Diagnosis (1)

- Patient was treated with **doxycycline** showing a rapid response.
- At discharge, a week later, the exanthema had almost disappeared leaving a small eschar.
- Serum samples were taken from the patient on admission.
- The diagnosis of infection was confirmed serologically.

## Diagnosis (2)

High titers of antibodies against  
*Rickettsia conorii*  
were detected the serum sample.

# Key elements

- *Rickettsia* are obligate intracellular bacteria normally living in arthropod cells. They occasionally cause diseases in humans.
- *R. conorii* is the agent of **Mediterranean spotted fever**, which is transmitted by brown dog ticks.
- *R. conorii* requires an **arthropod (insect) vector** for transmission. From the portal of entry in the skin, rickettsiae spread via the bloodstream to infect the endothelium and sometimes the vascular smooth muscle cells.
- Common symptoms of disease in humans include nausea, vomiting, abdominal pain, encephalitis, hypotension, acute renal failure, and respiratory distress.

*The new Acropolis Museum welcomes you!*

