A 17-Year-Old Patient with Pulmonary Infiltrate and Rash

A 17-year-old male patient was admitted to the hospital with fever, headache, and soaring mouth. These symptoms developed during the week before admission. Treatment with amoxicillin produced no effect. The patient’s medical history was unremarkable, and he denied abusing drugs, engaging in sexual contact, and having recently traveled.

At the time of examination, the patient appeared to be experiencing discomfort. His temperature was 39.1°C, and he had crusted lips with superficial ulcers on the gums and buccal mucosa (figure 1); hemorrhagic conjunctivitis was also noted (figure 2). Bronchial breath sounds were heard over the right lower lung field, and an infiltrate was seen on a chest radiograph.

The results of such laboratory tests as blood counts, serum biochemical analysis, and evaluations of renal and liver functions were all within the range considered to be normal. The results of blood and urine cultures were negative.

Intravenously administered ceftriaxone (1 g b.i.d.) and orally administered roxithromycin (150 mg b.i.d.) were given for the treatment of presumed pneumonia, and valacyclovir (1 g b.i.d.) was given for the treatment of suspected herpes simplex virus stomatitis.

No improvement was noted during the next 48 h, during which time a new symptom, dysuria, evolved. Examination performed at this time revealed new, sparsely scattered pleomorphic lesions in the form of a target, or iris, lesion on the patient’s limbs (figure 3) and in his genital area.

What is your diagnosis, and what rapid test can support it?