

Problem-based Learning

CASE ESSAY 5

24-Year-Old Man with Severe Generalized Rash and Fever

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A 24-year-old man was referred because of exanthema. He had previously been in good general health until two weeks before admission when he developed an itchy rash on the face and trunk with spreading to the arms and thighs. He had fever (38.5–39°C) and a slight headache, but was otherwise asymptomatic. On admission the patient was febrile (39.3°C) but in fine general condition. He presented with slightly scaly, dull-red rash localized centripetally on the face, neck and abdomen and consisting of well-demarcated, slightly scaly papules and plaques.

The initial differential diagnoses are REACTIVE EXANTHEMAS, which can be precipitated by drugs or infective agents, versus an inflammatory skin disease. Within the latter group we should primarily consider PSORIASIS and PITYRIASIS ROSEA. Psoriasis is not normally associated with fever, unless precipitated by streptococcal pharyngitis. Mild fever can be seen in pityriasis rosea, but a temperature of >38.5°C is unlikely. I would like to know

whether this patient had any focal symptoms of bacterial infection that could explain an abrupt onset of psoriasis. We should also know the history of drug intake.

A month before the development of skin symptoms he had been treated with Azithromycin (Zitromax®) for Chlamydia urethritis and with pivampicillin (Pondocillin®) with probenecid for anal gonorrhoea. There was no sign of pharyngitis in this patient; thorax auscultation and abdominal examination were normal. Blood test showed a mild hyponatremia (135 mM) but other parameters, including haemoglobin, leukocytes, creatinin, C-reactive protein and liver biochemistry were normal.

The symptoms were preceded by a history of antibiotic intake, which opens a possibility of DRUG-INDUCED EXANTHEMA. Antibiotics, especially

penicillins, are the most frequent triggering drugs. However, drug-induced exanthemas develop within 1–2 weeks after the initiation of the treatment and tend to disappear when the drug is stopped. This patient experienced a progressive worsening of the rash after the cessation of antibiotics. Bacterial infection is also unlikely in view of the absence of leucocytosis and increased C-reactive protein. There is no further support to the initially mentioned possibilities of psoriasis and pityriasis rosea. I am however struck by the fact that this patient was within a short period of time treated for two sexually transmitted diseases: chlamydia and gonorrhoea.

On direct questioning the patient reported to be homosexual and to have had 4 different sexual contacts during the preceding 6 months. He used a condom most of the times but



Fig. 1. Skin lesion showing dull reddish scaly papules and plaques.



Fig. 2. Skin lesion showing dull reddish scaly papules and plaques.

on several occasions had oral sex without protection.

History of unprotected sexual intercourse opens new diagnostic possibilities. Sexually transmitted diseases should be taken into account of which ACUTE HIV EXANTHEMA and SECONDARY POPULAR SYPHILIS are on the top of the list. Only when these are ruled out we can consider other VIRAL EXANTHEMAS, such as erythema infectiosum, mononucleosis and non-specific rash that may occur after infection with enterovirus, adenovirus or parainfluenzavirus.

A biopsy was taken and showed unpecific perivascular lymphocytic infiltration. HIV test and syphilis serology were negative.

Biopsy rules out our initial diagnoses of psoriasis and pityriasis

rosea. Secondary syphilis is unlikely, since serology is usually positive at this stage. Test for HIV antibodies was negative, but acute HIV infection is still a possibility. The routine HIV test is often negative in the initial stages of the disease and therefore test for HIV RNA is imperative.

HIV RNA was positive. The diagnosis of acute HIV exanthema was made and the patient was referred to the department of infectious medicine for further treatment.

Diagnosis: Acute HIV Exanthema

Comment

The prevalence of sexually transmitted diseases is steadily increasing. While most of them do not pose any

diagnostic difficulties, two are considered to be great imitators of other skin diseases: syphilis and HIV infection. After a period when syphilis had been a rare disease, its incidence has been rapidly increasing. Skin eruption in secondary syphilis is pleomorphic and can easily be confused with non-specific viral rash, pityriasis rosea, psoriasis, sarcoidosis, disseminated folliculitis, acne or erythema multiforme. Few remember all types of classic presentations: macular (roseola), papular, papulosquamous, corymbose, circinate, pustular, rupioid, lichenoid, and syphilitic alopecia. A description of all types of secondary lesions in syphilis would include a major portion of morphologic dermatology. Therefore, a syphilis serology test is imperative in a sexually active patient with unidentified skin rash.

Similarly, cutaneous manifestations of early HIV infection may be difficult to grasp. They vary from faint, transient erythema to macular, papular, papulosquamous and acneiform rashes. The clinical clue is the predominantly facial and trunkal localization and often presence of systemic symptoms, such as fever, malaise or weight loss. At this early stage the patients will have negative HIV antibody test, but tests for viral replication (HIV RNA or p24 antigen) can confirm the diagnosis.