A CASE OF DISSEMINATED GONOCOCCAL INFECTION IN AN IMMUNOCOMPETENT WOMAN

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Introduction

Neisseria gonorrhoeae is a gram-negative diplococcus that can present as a localized or disseminated form. Disseminated gonococcal infection (DGI) is a rare complication of Neisseria gonorrhoeae infection. The incidence ranges from 0.5 to 3% and various conditions such as complement deficiencies and immunodeficiency can predispose to the disseminated form. We present an immunocompetent young African-American female who presented with high-grade fever, generalized rash and polyarthralgia.

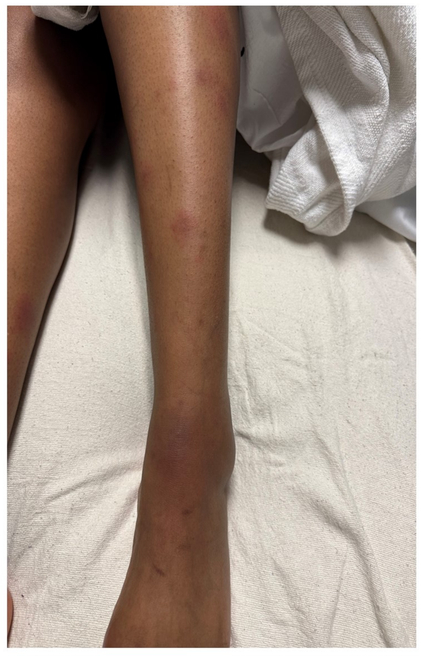
CASE DISCUSSION

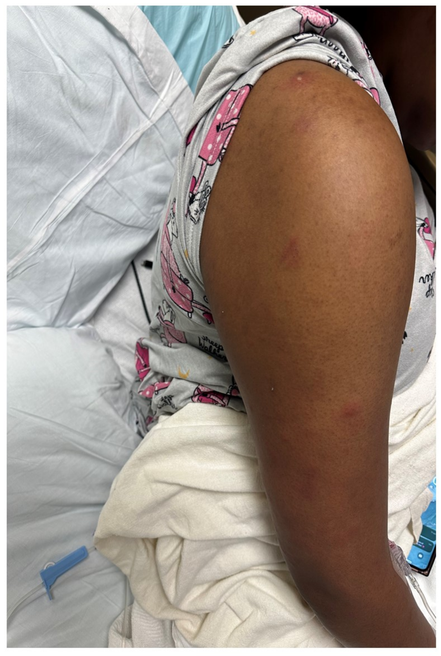
A 26-year-old female who presented to the hospital with a 3-day duration of rash and a fever of up to 104F. Her rash initially started on her face and then spread to her torso and lower extremities. The rash was non-itchy, painless, and had occasional drainage over her lips and torso. She had a history of high-risk sexual activity, HSV-2 and prior STDs. She was taking suppressive valacyclovir and denied any previous HSV-2 flareups. She had no changes to her medications or body-care products recently.

She was febrile and tachycardic on arrival. A vesiculopustular rash was noted on her face and neck area. A painless diffuse nodular rash was noted over the rest of the body, including over her shins that mimicked erythema nodosum.

CASE DISCUSSION CONT'D

A tender, warm, and erythematous asymmetrical joint involvement without effusion was noted in the lower extremities. Her white cell count was normal, and she tested nonreactive for HIV and RPR. Blood cultures and throat swab cultures were negative. She was empirically started on Ceftriaxone and her suppressive valacyclovir dose was increased to therapeutic dosing. She also received a one-time dose of Azithromycin 1g for empiric chlamydia treatment. Subsequently, she developed painful vaginal ulcers while in the hospital that improved before discharge. Clinical resolution of her joint symptoms and improvement in the skin lesions were noted prior to discharge. She was discharged home on oral cefixime to finish a 7-day total course of antibiotics. On outpatient follow-up, after completion of antibiotics, her skin lesions had completely resolved.





Discussion

Disseminated gonococcal infection can present as suppurative arthritis, arthritis-dermatitis syndrome, meningitis or endocarditis. The clinical scenario described above fits the picture of the second subtype. DGI typically has negative blood cultures. The latest recommendations are to obtain pan cultures from all mucosal sites. DGI should be treated as a medical emergency and diagnosis should not be dependent on isolation of Neisseria gonorrhea as testing has very low sensitivity. Diagnosis can be made clinically with typical presentation, lack of alternative diagnosis and good response to the appropriate therapy. The duration of therapy is dependent on the subtype and a 7-day course of intravenous Ceftriaxone is sufficient for DGI. An oral regimen should only be chosen based on antibiotic susceptibility and after 24-48 hours of significant clinical improvement because of high rates of treatment failure. In our case, the patient was treated with 4 days of intravenous ceftriaxone with significant improvement. Due to anticipated lack of compliance with outpatient IV/IM ceftriaxone, she was discharged on oral cefixime for 3 days to complete a 7-day course. Concurrent empiric treatment for chlamydia is recommended.

References

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