

Chest wall abscess in a 26-year-old woman with disseminated gonococcal infection

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A 26-year-old woman presented to the emergency department with a 1-month history of right knee and metacarpal arthralgia, tenosynovitis and pustules on her hand. She was sexually active, with 1 partner. Her urine gonococcal nucleic acid amplification test (NAAT) was positive, and we diagnosed disseminated gonococcal infection and admitted her for intravenous ceftriaxone 2 g/d. While in hospital, she developed an enlarging chest wall mass. A computed tomography scan showed an abscess on her chest wall (Figure 1), requiring incision and drainage. Cultures from the patient's chest wall fluid were negative but 16S rRNA with gene sequencing confirmed presence of *Neisseria gonorrhoeae*. We continued ceftriaxone for 17 days and stopped it after the abscess had resolved.

Neisseria gonorrhoeae is a highly infectious Gram-negative diplococcus transmitted mainly through unprotected vaginal, anal and oral intercourse. It is the second most common bacterial sexually transmitted infection in Canada, after chlamydia trachomatis.¹ Between 2009 and 2018 the annual incidence rate of *N. gonorrhoea* infections in Canada rose 190%.¹

Nucleic acid amplification testing is now the recommended method for diagnosis of *N. gonorrhoeae* as it provides increased sensitivity while maintaining high specificity, compared with culture for detecting *N. gonorrhoeae* in samples from genital and non-genital sites.^{2,3} Nucleic acid amplification tests are designed to amplify and detect organism-specific nucleic acid sequences and do not require viable organisms to be present in samples.³ 16S rRNA is a highly conserved gonococcal nucleic acid that, when targeted in testing, allows for identification of bacteria to the species level.² Nucleic acid amplification testing should be done using first-void urine samples or swabs from the vagina, cervix, urethra, rectum or other site of clinical concern.³

Given the rising rates of *N. gonorrhoea* infections in Canada, clinicians should maintain a high degree of suspicion in sexually active patients. Focus should be on early diagnosis and treatment to prevent late sequelae of infection.

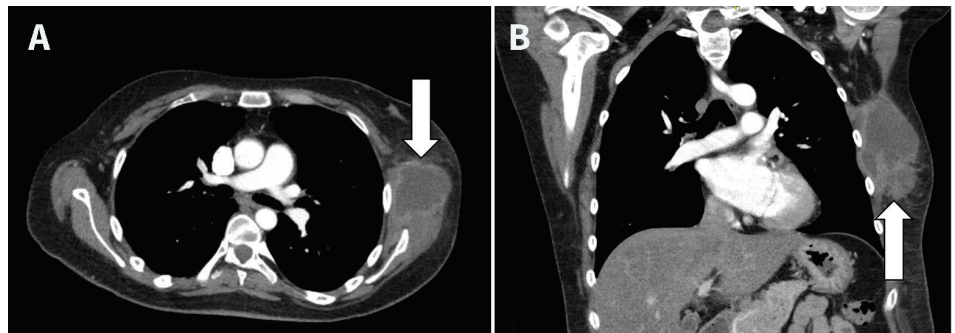


Figure 1: An infused computed tomography scan of the chest of a 26-year-old woman, showing complex fluid collection with peripheral enhancement measuring 5.8 × 3.6 × 7 cm centred within the left latissimus dorsi muscle, with some involvement of the subscapularis muscle. The muscles surrounding the collection appeared mildly hyperemic, suggestive of a myositis. (A) Cross-sectional view of chest wall abscess (arrow). (B) Coronal view of the patient's chest wall abscess (arrow).

References

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