A Case Report: Syphilitic Pelvic Lymphadenitis

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Background

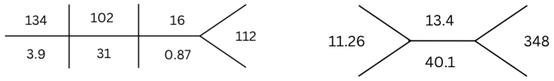
Syphilis is caused by the spirochete *Treponema pallidum,* which is transmitted most through sexual activity but also through blood-borne transmission, including needle sharing[3]. Syphilis is classically grouped into primary, secondary, and tertiary stages. Primary syphilis presents as a painless chancre but may not always be present. Secondary syphilis typically presents with a widespread rash, while tertiary syphilis is characterized by neurologic or cardiac involvement[4]. Although these presentations are classic, syphilis can present with a wide range of non-specific symptoms, which can mimic many other disease processes.

Patient Presentation

The patient is a 40-year-old female with past medical history of asthma, polysubstance abuse who presented with fever for one week. She reported several days of myalgias, sore throat, mild dry cough, headache, and LLQ abdominal pain. She reported current use of smoking methamphetamine and past IVDU with last use 6 months ago. She tested positive for gonorrhea 8 months prior in which she was treated 3 months after diagnosis. She reported that she was sexually active with one female partner and has not had a partner with a penis in 16 years. She was tested for STIs three weeks prior to presentation which was negative for HIV, chlamydia, and gonorrhea.

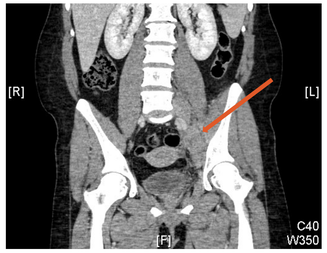
She was noted to have a diagnosis of lupus in her chart, but the patient was not sure if this was a true diagnosis and was never on treatment. She denied weight loss, night sweats, joint pain, or rash. On exam the patient had tenderness in the LLQ to palpation. No rash was noted on exam.

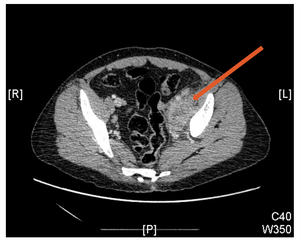
Lab Results

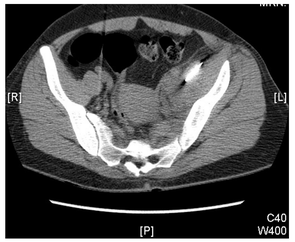


Test	Result
Monoscreen	Negative
IFN Gamma	Negative
Hepatitis A, B, C	Nonreactive
RPR	Reactive
RPR Titer	1: 128
FTA-ABS	Reactive

Imaging







Pathology Report

Sample: Lymph node, left pelvic, biopsy

Flow Cytometry:

- Limited due to low cellularity
- T Cells with normal CD4: CD8 ratio
- Mature B- cells are too sparse to assess light chain clonality

Final diagnosis:

- Granulation tissue with acute inflammation, mixed T/B cells, an several polyclonal plasma cells
- No evidence of metastatic carcinoma or lymphoproliferative disorder

Diagnosis and Treatment

The differential diagnosis for this patient included neoplastic process, autoimmune induced lymphadenopathy, and infectious causes. Once the FTA-ABS returned positive, the patient was called and asked to follow up at a local clinic. The patient was treated with benzathine penicillin G 2.4 million units IM, but did not return to clinic for repeat RPR titers or follow up

Discussion

Pelvic lymphadenopathy has a wide differential including malignancy, inflammatory or autoimmune processes, and infection. Syphilis is one infectious etiology to keep in mind, as lymphadenopathy can be seen at any stage of syphilis[1]. Typically, syphilitic lymphadenopathy is painless in presentation and located within the inguinal lymph node chain[2].

Including syphilis in a differential for lymphadenopathy is an important consideration. Additionally, all stages of syphilis can be asymptomatic[1]. Diagnosis is typically performed with serologic testing, but biopsy is often performed when there is suspicion for malignancy. Typical pathology findings show a mix of lymphocytes, plasma cells, and signs of chronic inflammation, but silver staining is needed to visualize spirochetes[5]. In this patient's case, silver staining was not performed but the pathology was consistent with inflammation. The initial RPR titer was positive, and the infection was confirmed with FTA-ABS. The patient eloped from the hospital prior to the final laboratory and pathology results but was called with instructions to follow up at a local health clinic.

Both primary and secondary syphilis cases have been on the rise in Colorado since 2017, with a 156% increase in rates between 2017 and 2021[6]. With an increase in cases in our state, having a high suspicion for syphilis is important in all clinical settings.

Conclusion

- Pelvic lymphadenopathy has a wide differential
- Lymphadenopathy can be seen at any stage of syphilis
- With rising cases in Colorado, a high suspicion for syphilis in a wide variety of clinical presentations is key

References

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