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Case Report

Never underestimate the great mimicker; it may be around you.

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Abstract

Syphilis is a systemic disease and can present with many systems involved. It can present to a non venereologist where primary symptoms are usually non-genital. Here we present a case of secondary syphilis with polyarthritis and ocular involvement.

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Key words: Poly arthritis, ocular syphilis, secondary syphilis, neuro-syphilis

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Introduction

Syphilis is caused by spirochete; *Treponema pallidum pallidum*, and can present as primary, secondary, or latent infection. *Treponema pallidum pallidum* can infect many organs and systems, including central nervous system, eye, ear, cardiovascular system, bone and soft tissues. Secondary syphilis is due to generalized infection, and manifestations may vary. Careful examination of a patient with syphilis is important to identify involvement of other systems apart from genital examination. These patients initially may present to other specialties depending on the system and organ affected.

Case Presentation

A 45-year-old male was referred to the Sexual Health Clinic Negombo from Rheumatology clinic for assessment of genital ulcers while on treatment for polyarthritis. On examination, he had lesions over the glans penis compatible with mucosal ulcers of secondary syphilis and a faint rash over the palms and soles. His STI screening showed a reactive VDRL with a titre of 1:256 and a positive TPPA (+2). HIV screening and chlamydia and gonorrhea PCR testing were negative. Sexual history revealed unprotected sexual exposures with a male partner nine months back for many occasions.

Medical history revealed that he was presented to rheumatology clinic with polyarthralgia for 6 weeks with early morning stiffness of small joints 2 months back without any recent history of gastro-enteritis or features of urethritis or past history of arthritis. Examination had revealed inflammatory swelling and tenderness of bilateral wrist joints, metacarpo-phalangeal joints, and knee and ankle joints. His investigation results has been summarized in table 1.

Table 1 – Investigations results

Investigation	Result
Serum VDRL	Reactive titre- 1:256
Serum TPPA	Positive 2+
ESR	65 mm / 1st hour
Hb	12.9 g/dl
Platelet	284 x 10
WBC	4.3 x 10*3
Neutrophil	2.6 x 10*3
Serum Creatinine	0.8 mg/ dl
Anti–cyclic citrullinated peptide (AntiCCP)	25 EU/ml
ALT	84 IU / dl

He was started on Prednisolone 10 mg daily, tailing off regimen together with methotrexate 10mg weekly and celecoxib 200mg twice a day with the diagnosis of sero-negative rheumatoid arthritis.

After three weeks, he showed no improvement of symptoms and continued prednisolone 7.5 mg daily for 2 weeks with methotrexate was increased to 12.5mg weekly and folic acid 5 mg weekly and hydroxychloroquine (HCQ) 300 mg at night for 2 weeks. Then he developed erythematous rash on his upper limbs. Subsequently methotrexate and hydroxychloroquine were withheld suspecting a drug reaction.

Meanwhile he developed blurring of vision in his left eye, and reduced vision in right eye, and was seen by the ophthalmologist. Right eye vision was 6 / 60 on the Snellen's chart while Left eye was 6 /12. Funduscopic examination revealed a blurred disc margin in the right eye and disc oedema in the left eye which was compatible with optic neuritis and inflammatory cells in vitreous, and chorioretinitis. Patient was referred to a neurologist who confirmed optic neuritis with normal findings of rest of the central nervous system examination. Contrast enhanced computed tomography (CECT) of brain and Visual evoke potential (VEP) were normal.

Patient was referred to Venereologist at this stage and according to the clinical and serological evidence, diagnosis of secondary syphilis with ocular and neurological involvement (bilateral uveitis and optic neuritis) was made. Neurosyphilis treatment was planned with IV Aqueous Crystalline Penicillin for 14 days and lumbar puncture was performed prior to treatment. CSF VDRL was negative while CSF TPPA was positive with normal CSF protein and absent cells in CSF. He showed dramatic improvement following treatment with penicillin and was completely free of symptoms and signs in joints, eye, and genitalia after the treatment.

Discussion

Secondary syphilis generally presents about three months after the initial infection with treponema and could manifest as relapsing presentation within two years of infection in untreated individuals (3). As secondary syphilis is a systemic infection, and manifest as a wide spectrum of symptoms and signs.

This patient presented with a wide range of initial symptoms: polyarthritis, visual impairment, mucosal lesions in genitals, and he was initially presented first to a rheumatology clinic but not to sexual health clinic.

Inflammatory type of polyarthritis is described with secondary syphilis in the literature, however commonest joint manifestations are seen in congenital syphilis and tertiary syphilis.(1) This patient did not show accepted improvement with prednisolone, and methotrexate for patients with inflammatory arthritis. Inflammatory arthritis is a part of the synovitis in secondary syphilis, and clinicians need to pay special attention in cases with poor response to standard treatment similarly in this case.

Syphilitic eye involvement can be seen as a part of neurosyphilis or isolated ophthalmic involvement. This patient had poor vision in right eye, with evidence of posterior uveitis and optic

neuritis.(2) Syphilis is known to cause anterior and posterior uveitis commonly in the phase of secondary syphilis. This patient had optic neuritis without any other neurological manifestation. These features are compatible with syphilitic eye involvement commonly seen with early syphilis. He had normal visual evoked potential (VEP) indicating normal nerve conduction in the optic nerve and normal contrast enhanced CT in the brain indicating normal brain and cranial nerve structurally. Considering the involvement of optic head, lumbar puncture was performed and showed negative CSF VDRL and positive CSF TPPA. This patient had no symptoms of meningeal involvement, no cranial nerve palsies, and normal CSF protein without cells, negative CSF VDRL (repeating). All these are more compatible with isolated ocular syphilis in this patient. He showed remarkable improvement of vision and clinical features following treatment with Benzyl penicillin. Having positive CSF TPPA is non-specific for neurosyphilis, but negative TPPA in CSF more likely to rule out neurosyphilis.

This patient had classical features of mucosal lesions on his penis with faint palmar and plantar rash. Secondary syphilis classically featured with skin rash, adenopathy, and mucosal lesions. This case is to highlight the involvement of other systems with secondary syphilis, and the first locally reported case of secondary syphilis presenting with polyarthritis.

Conclusion

Syphilis may present with many systems and organ involvement, and first presentation may be to a non-venereologist. Although less common secondary syphilis can present with polyarthritis.

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