Acute hepatitis as a presenting feature of secondary syphilis

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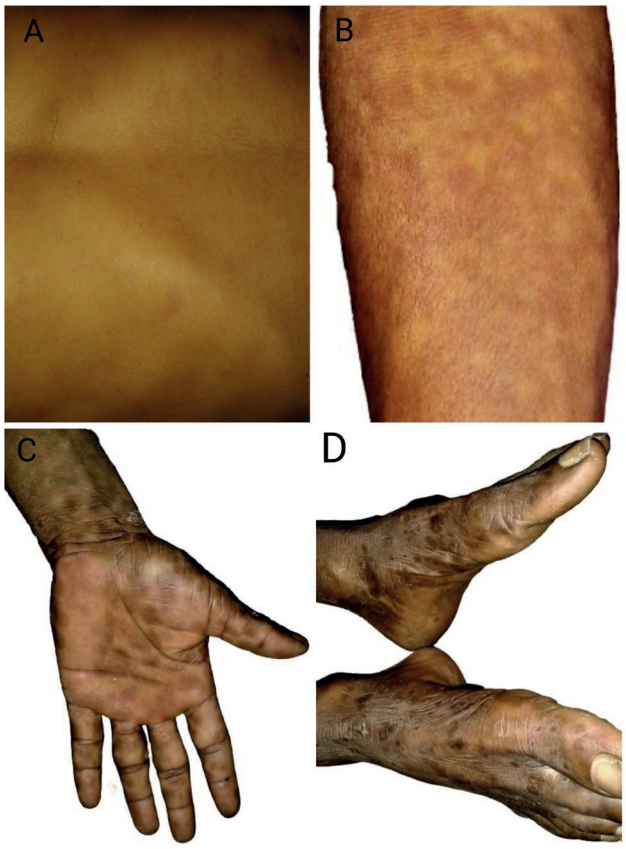
A 27-year-old unmarried male, without any comorbidity, presented with high grade fever and generalised skin rash including acral areas for one and a half months, followed by a gradual onset progressive jaundice accompanied by pain in the right upper quadrant of the abdomen and persistent vomiting for about 15 days. He had a history of unprotected anal intercourse with a male sex worker three months ago. No history was obtained regarding injectable drug use, blood transfusion or use of any regular medication. On examination, he was icteric with glossitis. There was generalised papulosquamous eruption resembling pityriasis rosea (Panel A, B) and multiple annular, tender hyperpigmented macules with collarette scaling over palms and soles (Panel C, D); Buschke–Ollendorff sign was elicited on deep dermal pressure, generalised lymphadenopathy and tender hepatomegaly (liver span 16 cm).

Liver function test revealed conjugated hyperbilirubinemia (total bilirubin 103 µmol/L, direct bilirubin 48 µmol/L), raised aspartate transaminase (206 IU/L), alanine aminotransferase (266 IU/L) and alkaline phosphatise (416 IU/L). Serology for Hepatitis A, B, C, E and HIV (I and II) were negative. Other causes of deranged liver function were actively ruled out. However, we were unable to obtain consent for liver biopsy. A venereal disease research laboratory test was positive in 1:64 dilution and a Treponema pallidum hemagglutination test was also positive. The patient was treated conservatively by deep intramuscular injectable benzathine penicillin 2.4 million units which led to a prompt recovery.

Syphilis is a venereal disease caused by *Treponema pallidum* with multi-system afflictions. It has a global incidence of

Figure 1 Generalized papulosquamous eruption over trunk and extremities resembling pityriasis rosea (Panels A, B); multiple annular, tender hyperpigmented macules with collarette scaling over palms and soles (Panels C, D)



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6 million annually among people of reproductive age group (15–49 years).[1] Syphilitic hepatitis is an uncommon and often overlooked manifestation of secondary syphilis, with 10% of patients developing deranged liver function tests.[2] Clinical hepatitis, though exceedingly rare in existing literature, has been known to occur in all stages of syphilis. However, up to 88.9% cases may present in early syphilis (including primary and secondary syphilis).[3] Rashes over acral or any other body parts are the most frequently documented symptom (78%), followed by fatigue/anorexia, hepatomegaly, jaundice and lymphadenopathy. Buschke–Ollendorff sign refers to the deep dermal tenderness on pressing the papular lesion of syphilis with a pinhead. This sign can be elicited in secondary syphilis and cutaneous vasculitis.[4] Derangement in liver function tests reveals a cholestatic pattern in most patients, with high alkaline phosphatise levels and marginally elevated to normal transaminase levels. However, our case highlights the rare possibility of encountering elevated aspartate transaminase and alanine aminotransferase levels in a case of syphilitic hepatitis.[5]

Syphilis, although non-hepatotropic, may lead to unidentified hepatitis, which can be diagnosed on the basis of characteristic liver enzyme patterns in the absence of other causes and seropositivity for syphilis.[6,7] Response to penicillin can also be regarded as a diagnostic criteria for syphilitic hepatitis.[7] We aim to inform clinicians about this uncommon manifestation of syphilis and keep it as an important differential in sexually active patients with abnormal liver function tests, negative serology for common hepatotrophic viruses and suggestive mucocutaneous findings.

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