SECONDARY SYPHILIS, SHOWING GRANULOMATOUS REACTION, NOT RESPONDING TO CONVENTIONAL DOSES OF PENICILLIN
(Case report)

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Summary

A case of secondary syphilis with granulomatous foci is reported. The patient did not respond to conventional doses of 2.4 mega units of benzathine penicillin but needed more than 12 mega units of penicillin for complete recovery. It is suggested that the clinical stages of syphilis are not merely due to progression of the disease, but represents an individual's response to disease.

The histopathological picture in secondary syphilis is perivascular infiltration of round cells and plasma cells, endothelial proliferation and endarteritis. In tertiary syphilis the infiltrate is an admixture of round cells, plasma cells, epitheliod cells, giant cells with caseation necrosis and endarteritis. However these features are not a desideratum. Secondary syphilis with gummatous pathology and vice versa is documented[1]. This communication deals with such a case.

Case Report

A female aged 40 years presented with complaints of rash, fever and joint pains of 2 months' duration. She had a history of exposure 4 months before with a stranger; 15 days after which she developed burning micturition and discharge per vaginum. She attended the local hospital for these complaints and was treated with 4 or 5 injections, but with little improvement. After another 1½ months she developed generalised rash, fever and joint pains, which were also treated with some injections She was married and had 7 children. There was no history of abortions. On examination there was a generalised papulo-nodular rash. (Fig 1) All joints were tender. Generalised lymphadenopathy was present. Speculum examination of vagina showed congestion of cervix and purulent discharge in vagina. Vaginal smears for gonococci and trichomonas were negative. Routine urine and motion examinations were normal. Blood counts were, Hb 11 G%, total leucocyte count 9800/c.mm, differential count P_{66} L_{30} E_4 and E.S.R. 50 mm/ 1 hour. Mantoux was positive with 16 mm induration after 48 hours. X-ray chest was normal. Skin clip for AFB was negative. Blood VDRL was reactive 1 : 32 dilutions. Biopsy of the skin lesions showed perivascular infiltration of lymphocytes and plasma cells with endothelial proliferation and endarteritis. Besides, there was granulomatous reaction around blood vessels of histiocytes,

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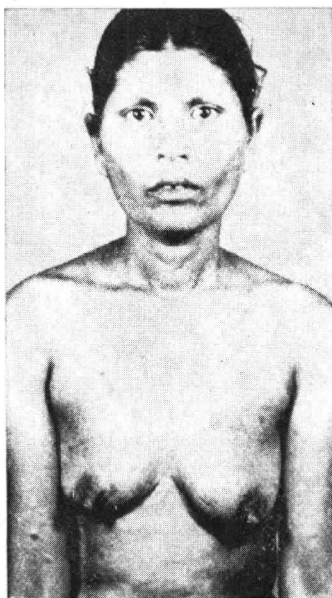
epitheliod cells and giant cells. C.S.F. was normal and CSF VDRL non reactive.



Picture showing the Papulo Nodular lesions before treatment

The patient was treated with 4.8 mega units of benzathine penicillin, but there was no response even after 1 week. On the other hand there was exacerbation of lesions due to Jarisch-Herxheimer's reaction. Patient was kept on prednisolone 5 mg three times daily for 1 day, and later procaine penicillin 8 lakhs for 10 days was administered. With this treatment patient showed response and nodular lesions subsided with residual erythema. Biopsy was taken after the administration of 12.8 mega units of penicillin, and there was regression of all granulomatous foci leaving only perivascular infiltrate of round cells and plasma cells.

Discussion

The evolution of secondary to tertiary syphilis is documented to be a gradual process.[2-5] Tertiary syphilis is said to occur because of (i) hypersensitivity (ii) trauma and (iii) incomplete treatment[2-6]. Hypersensitivity might be to endogenous treponemes or exogenous treponemes due to re-infection. The presence of gummatous lesions on exposed parts are said to indicate role of traumatic factor. Incomplete treatment is presumed to produce precocious tertiary syphilis. While accepting the role of hypersensitivity in the causation of tertiary syphilis it would be preposterous to presume that incomplete treatment would precipitate or hasten the hypersensitivity. In leprosy two polar types are recognised. The evolution into either type is said to be due to individual factors. It would therefore be not totally wrong to suppose that syphilis also would evolve into mere vascular or granulomatous forms depending on the individual. In leprosy, dimorphous forms, with features of both polar types are recognised. In syphilis transitional forms are considered more as a stage in the evolution of the disease, but not as one with bearing on the individual.

Total dosage of penicillin recommended by majority of authors in early syphilis[2,3] is 2.4 mega units of benzathine penicillin or 4.8 mega units of PAM or 6 mega units of procaine penicillin. In clinical practice recalcitrant cases which do not respond to these dosages are encountered. There are however certain authors who believe in doses of 12-20 mega units of penicillin in seropositive early syphilis[7].

References :

1. Lever WF: Spirochaetal Diseases, Histopathology of the skin, Third Edition, J B Lippincot Co, Philadelphia, 1961, p 257.
2. King A, Nicol C: Late Acquired Syphilis, Venereal Diseases, Second Edition. Bailliere Tindall & Cassel, London, 1969, p 29.
3. Willcox RR: Late Benign Syphilis, Text Book of Venereal Diseases and Treponematoses, Second Edition, William Heinmann Medical Books Ltd, London, 1964, p 188.

4. King: Spirochaetal Diseases, Syphilis, Prices Text Book of Practice of Medicine, Tenth Edition, Scott RB, English Language Book Society and Oxford University Press, London, 1966, p 108.

5. Boyd W: Syphilis, Pathology, Eighth Edition, Lea & Febiger, Philadelphia, 1970, p 353.

6. Olansky S, Norins L: Syphilis and Other Treponematoses, Dermatology in General Medicine, Fitzpatrick TB, Arndt KA, Clark WH, Eisen AZ, Van Scott ES, Vaugen JH, MacGraw-Hill Book Co, Ablakiston Publication, New York, p 1955.

7. Lees R: Venereal Diseases, Text Book of Medical Treatment, Eleventh Edition, English Language Book Society & ES Livingstone Ltd, 1968, p 614.