

PRIMARY SYPHILIS IN MALES : CLINICAL AND SEROLOGICAL OBSERVATIONS

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Clinical and laboratory observations in 107 patients with primary syphilis are presented. In the absence of laboratory facilities at small health centres, clinical criteria of a single, non-tender, indurated ulcer on the male genitalia with unilateral or bilateral non-tender inguinal lymphadenopathy helps to establish the diagnosis of primary syphilis in 90% patients.

Key words : Syphilis, Primary.

The recorded cases of syphilis in England and Wales fell from 17,675 in 1946 to 994 in 1960¹ and those in the USA fell from 106,000 in 1947 to 6,000 in 1957, a 95% decline attributed to the advent of penicillin. However, during the past two decades there has been a slow but steady resurgence of syphilis in these countries.² High rates of venereal syphilis have been reported from Asia and Africa in the recent past^{2,7} but due to insufficient data since the introduction of penicillin, it is not known whether this high prevalence is a recent phenomenon or it had been present throughout. Coupled with this, the increase in population, the industrial boom causing urban drift of young people, changed sexual attitudes and consequent permissiveness have all led to an enormous increase in the number of early syphilis cases. Moreover, developing countries are likely to have constraints of man power and resources and may therefore be unable to contain this problem. At some places, adequate diagnostic facilities such as darkfield microscope and serological tests for syphilis may be unavailable and the diagnosis of early syphilis may have to be based on the clinical impression of the attending physician. A retrospective analysis of patients having genital ulcer disease was therefore, undertaken to see the reliability of clinical features in establishing the diagnosis of primary syphilis in males.

Materials and Methods

During the past 18 months, detailed histories and thorough genital examinations were performed in all male patients with genital ulcer(s). Darkfield examination of smears was attempted from suspected syphilitic lesions and while awaiting results of Rapid Plasma Reagin (RPR) test, a provisional diagnosis was made and all suspected patients of primary syphilis irrespective of whether *Treponema pallidum* was demonstrated or not, were given a single intramuscular injection of benzathine penicillin 2.4 million units. All patients were called for review after two weeks and the final diagnosis was made in the wake of history, clinical features, laboratory results and the response to penicillin therapy.

All the case files of patients with final diagnosis of primary syphilis were analysed in relation to the clinical features and laboratory findings.

Results

The final diagnosis of primary syphilis was made in 107 male patients during the past 18 months. Of these 90% patients had presented with a single, non-tender, indurated ulcer on the genitalia and had unilateral or bilateral non-tender inguinal lymphadenopathy (Table I). Darkfield microscopy was performed in unselected 94 patients and *T. pallidum* was seen in 74 (84.0%). Almost half the total number of patients were sero-negative on RPR test (Table II).

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Table I. Clinical features of primary syphilis in 107 males.

Clinical feature	Number of cases (%)
1. Number of ulcer(s)	
One	96 (89.7)
Two	9
Three or more	2
2. Tenderness of ulcer(s)	
Tender	9
Non-tender	98(91.6)
3. Induration of ulcer(s)	
Indurated	102(95.3)
Not indurated	5
4. Inguinal lymph nodes	
Enlarged	95(88.8)
Non-tender	95(88.8)
Unilateral	42(44.2)
Bilateral	53(55.8)

Table II. Laboratory observations in males with primary syphilis.

The test	Number of cases (%)
1. Darkfield examination	
Positive	9(84.0)
Negative	15
2. Rapid Plasma Reagin test	
Reactive	50(49.0)
Non-reactive	52(51.0)

Comments

Various authorities in the past have reported atypical primary *T. pallidum* inoculation ulcers such as the secondarily infected tender lesions⁸ and those with associated suppurative lymphadenopathy.⁵ Despite all these variations, primary chancre still seemed to conform to the classical Hunterian description in as many as 90% of our patients.

Successful demonstration of *T. pallidum* in darkfield microscopy depends on the experience and expertise of the technical staff. Failure to demonstrate *T. pallidum* in 15 of our patients is attributed to prior administration of injectable or oral penicillins in 10 patients and use of topical antiseptic on the lesion by one case; in remaining four it may be due to incorrect history or technical error. Among these 15 patients whose lesions were darkfield negative, RPR test was non-reactive in 11 and not reported

in the remaining 4 patients and these constitute those patients where final diagnosis of primary syphilis was based on clinical features and response to syphilotherapy alone. The non-treponemal serological tests for syphilis are reported to be reactive in about half the number of patients of primary syphilis⁹ and are therefore of limited value for the diagnosis of primary syphilis in males. The Fluorescent Treponemal Antibody—Absorption (FTA-Abs) Test is expensive and requires technical expertise and thus not feasible for regular use at several places.

In the absence of laboratory back-up, presence of a single, non-tender, indurated ulcer on the male genitalia with associated unilateral or bilateral non-tender inguinal lymphadenopathy may be taken as diagnostic of primary syphilis. Darkfield microscopy is a valuable diagnostic aid when facilities are available. In case of women it may be difficult to diagnose primary syphilis using these features due to the fact that primary chancre is frequently concealed.

References

- AR Med Offr Dept Hlth, (London), (1964-73). HMSO 1947-1974.
- World Health Organisation. Treponemal Infections. Technical Report Series, 674, 1982.
- Lomholt G : Venereal problems in a developing country. Trop Doct, 1976; 6:7-9.
- Arya OP, Ongom VL and Tomusange ET: The role of a rural health centre in the control of venereal diseases in Uganda, E Afr Med J, 1974; 51:109-113.
- Friedmann PS and Wright DJM: Observations on syphilis in Addis Ababa : II, Prevalence and natural history, Brit J Vener Dis, 1977; 53:276-278.
- Dogliotti M: The incidence of syphilis in the Bantu: Survey of 587 cases from Baragwanath Hospital, S Afr Med J, 1971; 45:8-12.
- Willcox RR: Venereal syphilis and other venereal infections in non-venereal treponematoses areas in Africa, Central Afr Med J, 1958; 4:432-438.
- Lejman K and Bogdyszczaka-CJ: Brit J Vener Dis, 1969; 45:313-316.
- Willcox RR: Early acquired venereal syphilis, in: Textbook of Venereal Diseases and Treponematoses, Editor Willcox RR; William Heinemann Medical Books, London, 1964; p 166.