A case of yaws in Kelantan State and the value of VDRL and FTA – ABS in Family Studies

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Introduction:

THE YAWS ELIMINATION CAMPAIGN was launched in Malaysia in 1954 with the assistance of WHO and UNICEF. By 1960, the incidence of infectious yaws in the States of Kelantan and Trengganu was less than 0.5%. The recrudesences that we now see are probably the result of lack of surveillance and absence of control programmes in Ulu Kelantan and North of the border of Kelantan.

Before I present this case it would be useful to recapitulate some of the basic points about this disease:

(1) Yaw is one of the Treponematoses.
(2) Yaws is caused by **Treponema pertenue**, a spirochaetale which resembles **T. pallidium** and **T. carateum**.
(3) It occurs mainly in wet tropical regions.
(4) It is largely a rural disease.
(5) Transmission of the disease is usually skin to skin.
(6) Indirect transmission by flies is possible.
(7) Reservoir of infection is only man.

The Natural History of Yaws

(1) The incubation period is from 2 weeks to 6 months. After 3-9 months the lesions heal spontaneously without treatment.

(2) After an interval of several weeks to several months, there is generalised eruption of early skin lesions and involvement of bone. After a variable period of 6 months to 3 years lesions involute.

(3) During the next 5-10 years, the most frequent lesions are hyperkeratosis of the soles and palms. Healing occurs usually sponteneously.

(4) After this period usually 3 to 4 years, late lesions appear. These are non-infectious but destructive leaving scars on healing.

Therapy i/m P.A.M. — below 12 years: 0.6 mega.
— above 12 years: 1.2 mega.

The case:

A 10 year old boy from Kampong Telok Kitam, 7 miles from Kota Bharu was first seen on 11th January 1973 at the skin department. He was brought by his father, who had "puru" infection on his right leg many years ago. On examination there was a large oval ulcer at the anterior tibial region of his leg and secondary papillomata on his limbs. The ulcer was about six months old and the secondary papillomata developed two weeks later. In both father and son there was no evidence of bone involvement. The other two members of the family, the mother and the sister did not give the history of "puru" infection.

The diagnosis was confirmed by a positive FTA — ABS test (with a VDRL titre reactive at 64 dilutions). The boy was given a single injection of PAM, but unfortunately absconded on the 16th January 1973.

However, on 11th February 1973, we managed to trace the boy and his family. The boy's skin lesions had disappeared. Blood samples taken for the VDRL and FTA-ABS spt. tests gave the following results amongst members of the family:

Case	VDRL	FTA-ABS
10 year old boy	16 dilut	+ tve
48 year old father	4 dilut	+
10 year old sister	8 dilut	+
40 year old mother	2 dilut	+

Discussion:

Yaws as a disease will seldom be seen again and perhaps eradicated in the next decade if control programmes are well coordinated in neighbouring countries. Sad to say this sort of cooperation is still lacking and recrudescence of yaws can be expected if the socio-economic status of society comes tubling down with a rapidly rising populations.

This case is presented firstly to familiarise yaws to the younger generation of doctors and secondly to discuss the value of the VDRL and FTA-Absorption tests. Both these tests have become standard tests for the investigation and management of patients suffering from syphilis. The FTA-ABS test as a test of confirmation. The VDRL for response to therapy and also as a screening test. From the results of the young boy's family, it is obvious that this is also applicable to yaws both in managementand epidemiological surveillance.

However in a tropical environment especially so in the State of Kelantan, one has to be cautious with the VDRL test because of the high incidence of chronic false biologic positives associated with the high prevalence of infectious diseases such as Malaria and Leprosy. Though at the moment these tests are available only in Kuala Lumpur at the Institute for Medical Research, it is hoped that they will soon be introduced to all other clinical laboratories in Malaysia for accurate diagnosis and better management of chronic infectious diseases of the group treponematoses.

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