

THE INCIDENCE OF SYPHILIS IN THE BANTU: SURVEY OF 587 CASES FROM BARAGWANATH HOSPITAL*

M. DOGLIOTTI, M.D. (TURIN),† *Baragwanath Hospital, Johannesburg*

The increasing incidence of syphilis in many countries reported in various papers has been unanimously confirmed in recent congresses on venereal diseases in Italy (1963),¹ France (1965),² and West Germany (1967).³ Detailed reports on international work in the treponematoses were presented by Guthe and Willcox^{4,7} of the WHO.

From statistical evidence it is obvious that 'direct comparison of the incidence in different countries is often limited by differences in methods and completeness of reporting and classification',^{5,6} but there is no doubt that despite the application of health programmes regarding local, national and international epidemiological surveillance, syphilis still entails clinical, social and economic problems.

Cyclical fluctuations of syphilis recorded in past decades were related to wars, lack of proper public health laws and hygiene as well as to disregard of moral principles. The introduction of antibiotics and penicillin in particular in the 'mass treatment' raised the feeling that this infectious disease had found its way towards the 'sterilizatio magna' which had been Ehrlich's great hope. Contrariwise the period of the decrease after the mass antibiotic therapy lasted up to 1952-1954 when it became evident that the incidence of syphilis was once again on the increase. This event, unexpected even by the most pessimistic, drove the responsible authorities to thorough investigations in order to solve the problem of control of syphilis.

The occasional factors—direct or indirect as they may be—frequently escape the most experienced investigator and often the conclusions are based on data drawn from different countries: these data are, for many reasons, often not clearly consistent with the real situation.

REASONS FOR INCREASING INCIDENCE OF SYPHILIS

In my opinion some obvious factors have led to the rise of the morbidity of venereal diseases and mainly of early syphilis:

1. The press and other popular communication media have tended to minimize the importance of the disease.
2. Popular reports inculcated a false sense of security in the public by stressing that because of effectiveness, low cost and easy administration of antibiotics the disease could be 'knocked down'. This belief was confirmed in the early statistical reports but later figures show the dramatic reality and how deceptive was that sense of security.
3. The growth of urbanization and the absorption of large rural populations by rapidly expanding towns appear to be of increasing importance in the epidemiology of syphilis which is predominantly an urban disease.^{5,6}

4. Prostitution and homosexuality are the commonest sources of infection and the reservoirs of treponemas. It may be emphasized that both homo- and heterosexual activities are of great importance in transmission of syphilis. Kinsey⁸ in his report quoted that 50% of the adult population is predominantly heterosexual, 46% bisexual

and 4% homosexual. Consequently 50% of persons are implicated in dual sexual experiences. Furthermore homosexuals, who consider their perversion as a normal condition, are known to practise it with tremendous intensity and are continuously seeking new partners.⁹ These facts must not be neglected by clinicians, public health officials and paramedical staff.¹⁰

Some controversies have been reported^{5,6} about the closing of licensed or tolerated houses and the abolition of controlled prostitution in countries adhering to the UN Convention for the Suppression of Traffic in Persons and the Exploitation of the Prostitution of Others (CSTPEPO). These measures might actually hinder the control of venereal diseases and even help to spread them. It has been emphasized that the increase in recent years is similar in developed countries (Scandinavian) where licensed brothels were abolished decades ago and in those where they were suppressed recently (France, Italy), and that in some countries clandestine promiscuity appears to have taken the place of controlled prostitution in spreading venereal infections. In Italy, for instance, at the time of abolition of brothels, notification of venereal cases and their contacts was forbidden. Ducrey,¹¹ in a vehement protest against this step which he said was inspired by the 'fanatical ideology' of the International Abolitionist Federation, pointed out that Italy had dismantled its defences against prostitution and is contributing to the increased morbidity of syphilis.

Recent reports on this topic stressed that uncontrolled sexual intercourse protected by contraceptive devices or pills is responsible for the increase of venereal diseases, mainly syphilis. It has been shown that young girls are involved who are related to the so-called 'high society'—a social community morally and economically unquestionable. These young women denominated 'call-girls', 'Amazones', 'occasional prostitutes', 'enthusiastic amateurs'¹² represent one of the most common and uncontrollable sources of dissemination of syphilis.

In addition to this category, there are also the 'professional prostitutes' alias 'street-corner girls'.

5. Many young doctors have not come into contact with clinical signs and symptoms of syphilis for various reasons, including the rarity of the disease in the past decades, so that many infected cases were misdiagnosed while others were neglected or submitted to inadequate and/or insufficient therapy without proper clinical and serological investigations and follow-up. It may be assumed that these cases became sources of infection to their partners or their wives.

INCIDENCE AT BARAGWANATH HOSPITAL

Having noticed a monthly increase of early cases of syphilis attending dermatological sessions at Baragwanath Hospital among the Bantu population, I paid particular attention to this disease over a period of 19 months (January 1969 - July 1970) comparing its incidence with the number of patients seen at first consultation (3 490).

Although statistical reports on syphilis in the Bantu have been referred to in some papers, I have been unable

*Date received: 31 August 1970.

†Formerly Associate Professor of Dermatology, University of Turin, Italy.

to trace suitable figures and references on this topic from Baragwanath Hospital. In a recent paper¹³ I mentioned the rate of syphilis in the Bantu without extensive consideration.

Fig. 1 records the monthly incidence of syphilis and shows a total of 587 cases, 362 males and 225 females, the majority suffering from early phases of the disease. The monthly percentage in the graph shows an average of 16.82%.

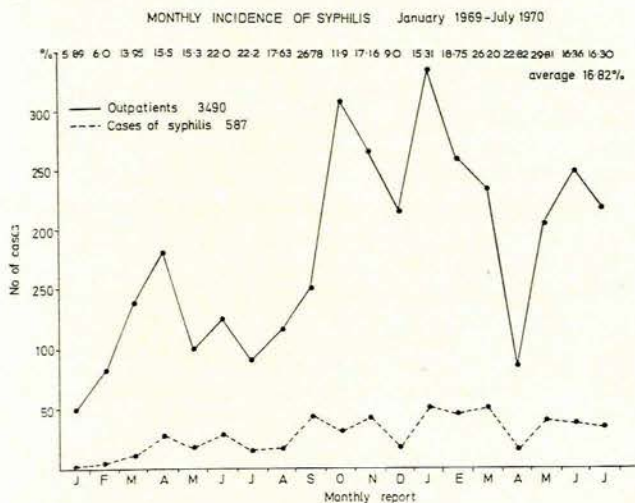


Fig. 1. See text.

Fig. 2 deals with the sex and age of patients and with figures of primary and secondary manifestations.

Table I summarizes the statistical data in addition to cases of late and congenital syphilis.

Accurate inquiry clearly stressed the venereal origin of early syphilis; different areas of contamination were often mentioned. Social conditions and hygienic standards apparently did not account for the incidence or its increase.

DISCUSSION

The survey of 587 cases of syphilis in different stages observed in the Bantu population attending dermatological sessions at Baragwanath Hospital clearly indicates that primary and secondary manifestations are predominant. The former prevailed in males aged from 16 to 25, the latter in females aged from 16 to 20. The average for the whole number of attendances is 16.82%, one of the highest reported in various papers.

The diagnosis in all cases was made after accurate clinical and laboratory investigations. Confirmation in doubt-

INCIDENCE OF SYPHILIS ACCORDING TO THE AGE AND SEX OF PATIENTS

No of patients = 587 January 1969-July 1970

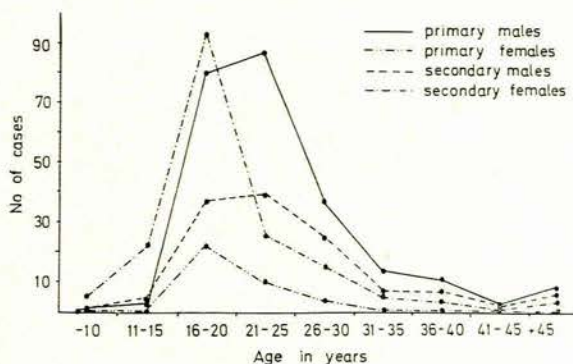


Fig. 2. See text.

ful cases was obtained by repeated serological tests (VDRL and Kolmer often associated with TPI and FTA-abs.) and pre-serological stages submitted to dark-field illumination for definite settlement. Late and congenital cases of syphilis were negligible.

The predominance of early syphilis among the young people so evident in my series is compatible with the figures reported from the WHO and announced in USA,¹⁴ Canada,¹⁵ Western Germany,¹⁶ Netherlands,¹⁷ Italy,¹ and Nordic countries.¹⁸

Questioning several teenage girls of this series of Bantu patients, I realized that most of them were not driven into sale of sex from 'basic necessities of life'—without doubt the essential factor among the 'professional prostitutes'—but that they chose this as the most profitable method to obtain extra luxuries or articles beyond their economic possibilities but considered indispensable in the modern way of life.

On the other hand, interviewing systems employed in the attempt to trace the names and addresses of partners were disappointing in either group. The sources of infection in the males were easily traced and indicated in the occasional contacts with uncontrolled prostitutes, while homosexual contaminations were traced in 6 cases. In children under 10 years of age I have been able to trace the contaminating sources in only 2 cases. A girl of nearly 10 affected by secondary papular elements on the genitals disclosed that she had been raped at the boarding school by an old man (maniac?), and added that she received a 5 cents ice-cream as a compensation! A boy of 11, ad-

TABLE I. INCIDENCE OF SYPHILIS IN BANTU ACCORDING TO THE SEX AND AGE OF THE 587 PATIENTS

Type of syphilis		Sex	<10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	>45
Primary	Male		1	2	80	87	37	14	11	2	8
	Female		1	1	22	10	4	1	1	—	1
Secondary	Male		1	4	37	39	25	7	7	1	6
	Female		5	22	93	25	16	6	4	1	3
Tertiary	Male		—	—	—	—	—	—	—	—	—
	Female		—	—	—	—	—	—	—	—	—
Congenital	Male		—	—	—	—	—	—	—	—	1
	Female		—	—	—	—	—	—	—	—	—
Total			8	29	232	161	82	28	23	4	20

mitted to hospital with evidence of secondary anal syphilis (condyloma latum), disclosed that he was submitted to repeated sodomitic contacts by an older brother who was later found to be suffering from secondary syphilis of the genitals.

The features of clinical manifestations observed in my series are not uncommon as they have been claimed recently by some authors whose figures varied from 18% to 40%,¹⁹ 25%,²⁰⁻²² and 50%.^{23,24}

The morphology of the primary chancre remains the same: multiple chancres occurred in 14.05% of cases, while ulcerative and gangrenous pictures occurred in 0.88% of the whole series. These unusual features of primary chancres may easily lead to an erroneous diagnosis mainly in patients suffering from acute additional inflammatory reactions, severe lymphogenic oedema, pus-like secretion and severe pain. In these patients accuracy on clinical investigations in addition to proper laboratory investigations (repeated dark-field illuminations) may aid in the diagnosis.

The reaction of regional lymph nodes has shown, on the other hand, some remarkable changes from what was formerly seen: as a rule the lymph nodes are discrete, small, firm, bilateral and painless. This picture is still seen in the majority of patients but in a certain number the lymph nodes show a high degree of inflammation, tendency to group in indurated plaques, or even to liquify with formation of fistulae simulating the clinical picture of lymphogranuloma venereum or the bubo seen in Ducrey's streptobacillosis. These conditions observed in several cases by Degos and De Graciansky²⁵ were recently mentioned by Lortat-Jacob;²⁶ the reasons remain obscure and all attempts to culture organisms from largely inflamed lymph nodes were negative. Speculations on the occasional changes of pathogenicity of the commensal flora of genitals in addition to the local reaction produced by treponemas are still a matter of arguments among the venereologists.

The secondary syphilis in this series was not marked by changes in clinical features and it is my impression that this phase still remains the period in which the 'great simulator' produces its most spectacular pleomorphic pictures. Unless the patients are not classified 'allergics' or 'hepatics' and treated consequently (with steroids!) the rashes and their distribution are unquestionable.

Late and congenital syphilis were found in a negligible number of cases. Serological and therapeutic considerations represent a subject of special research still under way and will be reported in a later publication. In summary, the changes of clinical manifestations of early syphilis in a series of 587 Bantu were minimal and not so impressive to permit any statement on changes of picture of the disease. I definitely agree with Lortat-Jacob's²⁶ conclusion: 'en relisant les auteurs classiques, on s'aperçoit qu'il n'y a aucune modification à apporter aux descriptions anciennes... Ceci signifie que nous avons oublié l'enseignement des nos maîtres'.

CONCLUSION

The high incidence of early syphilis (16.82%) observed in the Bantu over a period of 19 months at Baragwanath

Hospital, emphasizes the importance of the following suggestions for the prophylaxis and control of syphilis:

1. Progressive education on venereal diseases for the population, doctors, nurses, teachers and parents, using all available means of propaganda with particular appeal to fundamental feelings of morality and decency.

2. Notification of cases of early syphilis to the health authorities in order to accumulate data. Notifications may be anonymous.

3. Suspect or infected cases must be referred to the specialists at proper institutions. The patients will then be submitted to laboratory investigations *before treatment*, and when the diagnosis is ascertained they must receive proper therapy without charge and must later be submitted to periodical control. Files and follow-up cards could be kept under secrecy in the same institution.

4. Serological screening in leading centres may be performed for immigrants, workers, nursing staffs, domestic servants and baby-sitters.

5. Management of venereal diseases and syphilis in particular must be carried out by qualified specialists with full responsibility regarding diagnosis, therapy, prophylaxis and follow-up.

SUMMARY

A survey of early syphilis detected in 587 Bantu patients attending the Department of Dermatology of Baragwanath Hospital, Johannesburg, is reported. The clinical manifestations were found minimal in comparison with the reports of other authors. Suggestions for the control and prophylaxis of syphilis are stressed.

I wish to thank Dr F. Faivelsohn, Medical Superintendent of Baragwanath Hospital, for permission to publish this paper; Dr E. Rosenberg, chief medical officer of the casualty department, for his assistance; the SAIMR for helpful collaboration; and the Photographic Unit, Department of Medicine, University of the Witwatersrand, for assistance.

REFERENCES

1. Atti del Congresso della Società Italiana di Dermatologia e Sifilografia (1963): *Minerva dermat.*, **38**, suppl. 1, 83.
2. Journées Nationales de Dermatologie et de Syphilographie (1965): *Bull. Soc. franc. Derm. Syph.*, **72**, 451.
3. Proceedings of Congress (1967): *XIII Congressus Internationalis Dermatologiae*, vol. 1. München: Springer-Verlag.
4. Guthe, T. and Willcox, R. R. (1954): *Chron. Wld Hlth Org.*, **8**, 23.
5. Guthe, T. (1964): *Ibid.*, **18**, 403.
6. *Idem* (1965): *Ibid.*, **19**, 7.
7. Guthe, T., Idsoe, O. and Willcox, R. R. (1967): *XIII Congressus Internationalis Dermatologiae*, vol. 1, p. 345. München: Springer-Verlag.
8. Kinsey, A. C., Pomeroy, W. B. and Martin, C. E. (1948): *Sexual Behaviour in the Human Male*, p. 656. Philadelphia: W. B. Saunders.
9. Moriame, G. and Meerts, P. (1967): *XIII Congressus Internationalis Dermatologiae*, vol. 1, p. 367. München: Springer-Verlag.
10. Rausch, N. G. (1967): *XIII Congressus Internationalis Dermatologiae*, vol. 1, p. 366. München: Springer-Verlag.
11. Ducrey, C. jr (1960): *Brit. J. Vener. Dis.*, **36**, 98.
12. Calas, E., Bonnet, J. and Fiorens, A. (1965): *Bull. Soc. franc. Derm. Syph.*, **72**, 451.
13. Dogliotti, M. (1970): *S. Afr. Med. J.*, **44**, 670.
14. Loeb, B. M. (1960): *Brit. J. Vener. Dis.*, **36**, 191.
15. Epidemiologic Division of the Department of National Health and Welfare (1965): *Annual Report*, Ottawa.
16. Bundesministerium für Gesundheitswesen (1965): *XIII Congressus Internationalis Dermatologiae*, vol. 1, p. 353. München: Springer-Verlag.
17. Staatsgesicht op de Volksgesondheid (1966): *Ghi Bull.*, The Hague.
18. Danbolt, N. (1966): *Medicinsk Arbog*. Copenhagen: Munksgaard.
19. Birecka, A. and Jaschewska, F. (1960): *Przegl. dermat.*, **47**, 215.
20. Degos, R. (1958): *Sem. méd. (Paris)*, **34**, 789.
21. *Idem* (1963): *Vie méd.*, **44**, 333.
22. *Idem* (1965): *Bull. Soc. franc. Derm. Syph.*, **72**, 459.
23. Midana, A. and Zina, G. (1956): *Minerva dermat.*, **31**, 1.
24. *Idem* (1965): *Bull. Soc. franc. Derm. Syph.*, **72**, 573.
25. Degos, R. and De Graciansky, P. (1967): *Op. cit.*²⁶
26. Lortat-Jacob, E. (1967): *XIII Congressus Internationalis Dermatologiae*, vol. 1, p. 353. München: Springer-Verlag.