

SURVEY OF THE VENEREAL DISEASE SITUATION IN FRANCE*†

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Since the introduction of antibiotics venereal diseases have become a secondary problem in most countries. In France the incidence of recent syphilis is ten times lower than it was 10 years ago, gonorrhoea is twice as low, and soft sore and benign lymphogranuloma have almost disappeared. Non-gonococcal urethritis, however, is more and more in evidence.

FREQUENCY

The following figures from France will serve as examples of the present frequency of venereal diseases.

Disease	1945	1950	1955
Recent syphilis	12,094	2,703	1,156
Blennorrhagia	34,787	17,888	17,150
Soft sore	1,485	178	140
Lymphogranuloma	13	18	16

These are the official figures, but allowance must be made, especially when considering blennorrhagia, for the fact that many cases seen by general practitioners are never reported and are thus not included in the published statistics.

Blennorrhagia has not followed the trend of syphilis because:

(1) In France blennorrhagia and gonorrhoea are synonymous. This serves no useful purpose as it is unnecessary to have two words to designate the same condition. It is also deceptive because doctors are apt to diagnose without making a distinction between gonococcal and non-gonococcal urethritis. Blennorrhagia should indicate a genito-urinary discharge, and gonorrhoea a blennorrhagia containing gonococci. Steps are being taken for this distinction to be observed in future statistics.

This sets another problem because in France venereal diseases are treated free, *i.e.* syphilis,

blennorrhagia, soft sore, and Nicolas-Favre disease. So long as non-gonococcal urethritis is confused with gonorrhoea under the title of blennorrhagia, cases of non-gonococcal urethritis may be treated free. If a distinction is made, only true gonorrhoea will receive free treatment, and this will make difficulties in cases of non-gonococcal urethritis.

(2) Patients are not sufficiently well aware that just as it takes two to create a gonococcal urethritis it also takes two to cure the disease, and re-infections are very frequent. This is also largely due to the fact that diagnosis and treatment in the female are very difficult and many mistakes are made. As in other countries it is not uncommon for some patients to contract gonorrhoea three or four times in a year thus increasing the figures in the statistics.

Soft sores and cases of Nicolas-Favre disease have reappeared to a certain extent over the past 2 years, which is due to the repatriation of soldiers infected in Indochina. There are hardly any cases in which the disease has been acquired in France itself.

The frequency of non-gonococcal urethritis is difficult to assess because a number of practitioners still attach no particular importance to it and either do not trouble to report it in their returns or include it under the general heading of blennorrhagia. In our practice we find roughly 30 per cent. of cases of gonorrhoea to 70 per cent. of non-gonococcal urethritis.

SYPHILIS

Diagnosis.—Recently treated syphilis has become an ephemeral disease. Congenital syphilis has practically disappeared, and late complications become less and less frequent. The action of penicillin and the Treponemal Immobilization Test have led to a modification of certain points of view.

Ten to 20 years ago syphilis was held responsible for the majority of congenital malformations and many chronic illnesses. It is now known that the

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infection is only occasionally responsible for congenital malformations which are established *in utero* before the passage of the treponema into the embryo (usually in the 5th month). One can thus avoid treating as syphilitic every slightly deformed or abnormal child, and one tends on the other hand to insist on the importance of regular x rays of the skeleton before diagnosing congenital syphilis. Charpy (1950) says that even radiographs can lead to errors because syphilis is not alone in causing osteoperiostitis in young children (Thiers, Romagny, and Lévy, 1950).

The same applies to cardiovascular conditions. Every case is no longer necessarily considered to be syphilitic and in certain examples of aortic incompetence the role of this infection is open to discussion. In neurology we are now better acquainted with pseudo-vascular and diabetic tabes, etc.

General Investigation.—It is interesting to see what results the standard serological tests have given when routinely made on various occasions.

An interesting "Antiveneral Prophylaxis Day" was held in Lille in June, 1955, under the presidency of P. Huriez. The percentage of positive standard serologies (Kahn or Kline + +) was approximately as follows (Degos and Fournier, 1955; Gaté, etc.):

Subjects believed to be healthy (general health examination)	0·7
Premarital examinations	0·56
Prenatal examinations	0·6
Naturalization purposes	2·0
North Africans (Loire Département) ..	7·1
Foreign workers (according to district) ..	1·4
Convicts	2·5

It is difficult to give any percentage for prostitutes because in the published figures many prostitutes have been counted several times on account of the regular monthly examinations.

For many years we have been regularly examining the blood of blennorrhagia patients. In this way we have found about 2·5 per cent. latent positives (Durel and Daguet, 1949), which is roughly the same percentage as that found by Piguet and Foerster (1955).

All the positive reactions are not of course caused by syphilis. In a study made in collaboration with the Social Security Services and based on the Treponemal Immobilization Test (TPI) we came to the conclusion that some 17 per cent. of the positive reactions were Biologic False Positives (BFP).

Treponemal Immobilization Test.—France was the first European country to adopt the TPI test. Eight

laboratories are now doing the tests and in my laboratory about 20,000 have been performed by my colleagues L. J. Borel, G. Daguet, N. Hardy, and A. Sausse. The value of this test is confirmed daily.

Provided that a careful technique is observed, the test shows an excellent reproducibility, and in quantitative tests the results give closely comparable dilutions.

Certain serums, diluted a hundred times, still give a 100 per cent. immobilization. This shows that 100 per cent. immobilization of the TPI test in the qualitative test can only show a weak trend in immobilization, and that only the method of dilutions (quantitative TPI) can measure the amount of antibodies.

The TPI test of the cerebrospinal fluid (CSF) should be the object of further study. When the TPI is negative in the serum it is always negative in the CSF and has no diagnostic value. When the TPI is positive in the serum it can be either positive or negative in the CSF. The reason and prognostic significance of this finding is not clear.

Some workers have, not surprisingly, been troubled by cases of tabes or general progressive paralysis with a negative TPI which have been observed in previously treated patients. Treatment could have destroyed the *Treponema* (hence the negative TPI) without preventing the sclerosis started by the *T. pallidum* from doing its work (hence the progressive lesions).

It is more difficult to find an explanation for gummata showing a negative TPI, but the biology of the gumma is still doubtful and confirmation of the syphilitic character of a gumma, by clinical investigation or pathological anatomy, is often difficult.

Reactions using the Cultured Spirochaete as Antigen.—The work of Gaetgens and of Alessandro has been adopted in France during recent years. These authors have shown that a suspension of cultivated spirochaetes of Reiter can be used as antigen in a haemolytic reaction (Kolmer). We have been using the Italian Pallignost antigen and have compared it with the TPI (Hardy, Bornand, and Durel, 1955). The sensitivity and specificity are superior to those of cardiolipin. I think that this extremely simple reaction should be widely used.

Treatment.—It is very difficult to say what is the present treatment of choice in France because specialists' views differ so widely. Some use small doses of penicillin in cases of recently acquired syphilis. Joulia (1955) gives 1,200,000 units P.A.M. in one injection or 1,800,000 units in 3 days. Graciansky and Grupper (1953, 1955) favour 6 to

9 million units P.A.M. over 15 days, or even 2,400,000 of Benzathine Penicillin G (Extencilline) in one injection. Some specialists, following Bolgert, Lévy, Khan, and Mikol (1954) use as a cure 15,000,000 units (preceded or not by three or five injections of a mercurial preparation). Many others begin with 6 to 12 million units penicillin and continue with series of bismuth injections over a period of at least 2 years. These doses are higher than those used outside France. In France patients are accustomed to a lengthy treatment and rarely default. These good habits would quickly be lost if treatment with one injection became general, and we wait for this treatment to be tested elsewhere before adopting it. Penicillin is a wonderful weapon but, as Touraine (1955) emphasizes, it should not cause us to lessen our tried and tested surveillance.

This reluctance on our part is based on the following reasons:

(1) A certain number of observations have been published tending to show that a short treatment with penicillin is insufficient.

Riser, Gleize, and Riser (1953), treated a case of primary syphilis in 1943 with 5,000,000 units penicillin, then with 30,000,000 units from 1944 to 1947. General paralysis set in, and the patient died in 1952.

Riser, Gleize, Rascol, Ribaut, and Saint Marc (1955) treated a patient with secondary syphilis in 1946 with 6,000,000 units penicillin. The patient developed general paralysis of the insane in 1953.

Marceron and Ragu (1955) reported a case with primary syphilis in 1949 treated before serology was positive with 6,000,000 units. Blood remained negative. Tabes developed in 1954 (blood and CSF positive).

Pelbois (1955): Circinate maculo-papular syphilides appeared in a patient 5 months after treatment for primary-secondary syphilis with 6,000,000 units PAM (in Morocco, where syphilis is frequent).

(2) While patients are receiving bismuth re-infection is avoided.

These observations are not meant to imply criticism of penicillin but to account for the divergence of opinions; as recent syphilis has, however, almost disappeared in France, it is now very difficult to make any comparison of different methods of treatment.

Personally I feel one must be eclectic. One or two injections of 2,400,000 units Benzathine Penicillin G for mass treatments (countries outside France), 12,000,000 units Penicillin Panbiotic or Extencilline-bipenicilline in 10 injections, one every 5 days, for cases which can be better followed-up; 20,000,000 units at least in syphilis with late manifestations; penicillin prevention, whenever possible, for prostitutes by a monthly injection of 2,400,000 units Benzathine Penicillin G.

Certain authors (Graciansky, Grupper, Balter, and Prévost, 1954) think that the classic opposition to regular treatment after exposure to risk of contamination should be modified. In France treatment of syphilis with oral penicillin, tetracyclines, or other antibiotics has been studied but their use has not been generally accepted. Graciansky and Grupper (1955) have published an exhaustive study of the action of penicillin combined with cortisone.

GONORRHOEA

We mentioned above the reasons for the non-disappearance of gonorrhoea in France. This is often caused by diagnosis being made too late in the case of females and by non-observation of the rule of treating partners simultaneously. It is difficult to remedy this position because gonorrhoea has now become such a minor problem that doctors tend to ignore it. The drug most commonly used in France is streptomycin—1 or 2 g. dihydrostreptomycin for men and twice the amount for women. The chances of a simultaneous infection with gonorrhoea and syphilis are so slight that many specialists use penicillin (P.A.M. or Extencilline, 600,000 units, for men) to avoid using streptomycin. Oral antibiotics are rarely employed. Complications have practically disappeared. When one sees a Littritis, a prostatitis, or a balanitis it is safe to say that the organisms grown in culture are not gonococci. Gaudefroy (1955) estimated that gonococci caused only 2.4 per cent. of tubular occlusions and also found the organism in only 2.4 per cent. cases of post-operative specimens. From time to time one hears of an antibiotic-resistant gonococcus. This resistance may develop in the future but, apart from the well-known case of gonococci persisting in a para-urethral duct until local destructive treatment is instituted, I do not believe that the gonococcus shows any signs of becoming resistant. The few cases of supposed resistance which I have examined have always been cases of mistaken diagnosis, clinically or bacteriologically, as all *Neisseriae* are usually called gonococci.

NON-GONOCOCCAL URETHRITIS

Specialists are taking an increasing interest in non-gonococcal urethritis and are encountering the same problems as their foreign colleagues.

In France as elsewhere we are just beginning to make a systematic study of the disease. At our instigation the International Union against venereal diseases held a symposium with this end in view at Monaco in 1954. The publication of the reports

and discussions, which has now gone to press* includes many papers from France and other countries.

From the clinical point of view a few points only are beginning to emerge.

(a) With *Trichomonas vaginalis* (T.V.) there is a rather special sort of discharge resembling the leucorrhoea of T.V. vaginitis.

(b) There is a typical urethral-conjunctival-synovial syndrome, but sometimes it is difficult to ascertain the dividing line between this condition and certain kinds of rheumatism and dermatitis.

(c) The psychological element is also important and in such cases there is often a perineal ache.

Aetiology.—After a period of study it is believed that, on the available evidence, the presence of the PPLO (by culture) has no significance as the same amount of positivity can be shown in healthy subjects. The diagnostic fragility of inclusion bodies is more and more to be insisted on, and to be significant they must be purple-violet, regular, and grouped in crescent form. In France, to my knowledge, no study has so far been planned to verify by inoculation tests Lindner's original theories on inclusion urethritis, and diagnosis to-day is still purely morphological, that is to say, still doubtful. In contrast, the pathogenic role of *Trichomonas vaginalis* seems more and more evident.

In our group Sorel (1954) has emphasized that *Trichomonas vaginalis* in man is not very mobile and that the staining methods or, more especially, cultures are preferable for diagnosis to examination in the fresh state. In collaboration with V. Roiron and A. Siboulet we have compiled the following statistics:

Non-gonococcal urethritis with T.V. present: 59/565 (10.4 per cent.).

Non-gonococcal urethritis with frank inclusion bodies: 81/2328 (3.47 per cent.).

From the therapeutic point of view it appears to me that there are two kinds of non-gonococcal urethritis to be considered: one in which *T. vaginalis* has been confirmed and local treatment is needed, the other in which the parasite has not been found and which can be cured without local treatment. In the first case, as in the second case, general treatment is simply an adjuvant, local treatment being of first importance. Local treatment is chosen from one of the following: urethral instillations of methylene blue 1 per cent., or Mercurochrome 0.5 to 1 per cent., or Acetylarsan 23.6 per cent., or Holarrhena Africana Jelly (Roquessine) 2.4 per cent. introduced into the urethra. The second case only requires

general treatment with the recent antibiotics. The tetracyclines are active in 60 per cent. of cases but are not without risk and we frequently try streptomycin first (2g. a day for 5 days). For nearly 2 years we have been using, with the same results but with fewer secondary complications a French antibiotic, Spiramycin (Rovamycine), in a dosage of 4 g. a day for 5 days. Willcox (1956) has also obtained similar goods results with this antibiotic.

There have been some failures. Certain *T. vaginalis* urethritides remain persistent in spite of all treatment, and relapses are far from rare. Among the treatments in use urethroscopy is one of the best but necessitates several sessions.

Finally, treatment of certain types of non-gonococcal urethritis touches on psychiatry (psychotherapy, chlorpromazine, etc.), and we in France anticipate a close collaboration in this field between urologists and psychiatrists.

LEGAL AND SOCIAL ASPECTS

I can only mention here a few special points. There is a periodical in France, *La Prophylaxie Sanitaire et Morale* (Institut A. Fournier, Paris) which publishes everything of interest to specialists in these questions.

(1) In France treatment for venereal diseases is anonymous and free for all (Laws of 31 December, 1942, 8 July, 1948, 18 August, 1948). Drugs can be obtained free by medical practitioners for their private patients.

(2) Cases of venereal disease must be declared to the Health Authorities. Anonymously (for statistical purposes) if the patient submits himself for treatment, or by name (to enforce compulsory treatment):

- (a) if the patient refuses treatment,
- (b) if the patient is a prostitute,
- (c) if, by his occupation, the patient exposes those around him to the risk of infection.

(3) Treatment is compulsory. Those who refuse are subject to hospitalization in institutions.

(4) Investigation of the infecting partner is compulsory. The partner must produce a certificate of non-infectivity. In cases of refusal hospitalization in state institutions can be ordered.

(5) In order to marry, a couple must furnish a prenuptial certificate. This (to avoid all impediments to the marriage) must state that the couple have been examined. A venereal disease does not in itself prevent marriage, but the doctor is expected to persuade the interested party to obtain a clear bill of health before marriage.

* "Les urétrites non-gonococciques". In the press. Masson, Paris.

(6) There is also a prenatal certificate which must be shown by the pregnant woman before she can benefit from state grants to mothers.

(7) The laws of 13 and 26 April, 1946, concerning prostitutes have, as always in such cases, been the subject of many comments. I tried to give my opinion in an article in 1954 so I will mention only the salient facts here:

- (a) France has discarded police surveillance of prostitutes. Abolition is considered as being against the interest of public health; prohibition (which I personally would wish) is considered Utopian. The French system is that of sanitation. This means combatting prostitution by medico-social methods alone. Infected prostitutes are sought out and compelled to undergo treatment (in contrast to the simple persuasion of abolition). Prostitutes are taken to the health authorities by the police but there the role of the police ends.
- (b) Prostitutes who solicit commit an offence and are referred to the legal authorities (there is a fine or imprisonment if the offence is proved).
- (c) Licensed houses have been closed since 1946. It is impossible to say if this has made any difference to the incidence of venereal diseases because the number of women in them was not large (1,500 in Paris) and because the closing coincided with the introduction of the general use of antibiotics in treatment. From the criminal and moral aspects I think the closing has proved useful. In Algeria the law of 1946 has not yet been applied.
- (d) Women who want to live wholly as prostitutes or who are known to live only by prostitution (three offences) are put on to the Health and Social Register of Prostitution. In this way they can, and should, be regularly examined. One visit to the clinic each week, a test for gonorrhoea or culture every 7 days, a blood test each month. Women suffering from gonorrhoea are given ambulatory treatment, for syphilis they are hospitalized in the infective stages. On January 1, 1956, there were 7,116 women on this register in Paris and about 12,000 in the whole of France.

- (e) The clandestine prostitutes (those who live entirely on prostitution but who try to escape being put on the register) are traced by the police who take them to the Social Services for registration at the third offence.
- (f) I would estimate that a prostitute "earns" at least 80,000 francs per month, and that 80 per cent. of them are in the hands of ponces.

This review of venereal diseases in France is, of necessity, brief. To sum up, the antibiotics have, and in the best sense, changed everything. I believe that, in spite of certain doubts, there are many good scientific reasons for optimism, and it can be hoped that venereal diseases will soon become only a secondary problem in public health. Unfortunately, as far as prostitution is concerned, moral and economic problems will remain for quite a while. They are at present receiving some attention and will, I hope, be settled at least in part, in the not too distant future.

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