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VENEREOLOGY IN TRANSITION*†

BY

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The British venereologist (and his opposite number, the American syphilologist) may perhaps be compared with the fighter pilot whose aircraft has been shot from under him, and who is parachuting slowly down to earth wondering the while how this happened and what he will do when he lands. His confusion at his predicament is enhanced by a suspicion that, by some curious dichotomy, he has been in the dual position of defender and attacker of his own aircraft and that, in a fashion which he cannot yet quite comprehend, he has shot himself down.

His specialty is a young one, hardly four decades old. Led in the early days by a few devoted and dedicated physicians, among them Britain's L. W. Harrison, his first struggling efforts were to gain professional respectability. To detach venereal disease from quackery, and to attract competent young doctors to the discipline, required the diligent pursuit of new knowledge through research and the application of new diagnostic and therapeutic ideas through heightened professional skills. With recognition, sometimes grudging, by his medical colleagues, his next task was educational: to break down prudery, to bring the gravity of his public health problem to public attention, and to acquire, slowly and painfully, the financial ammunition wherewith to open mass warfare. In all these he succeeded.

Now, in 1956, he finds himself in the remarkable position of having worked himself almost, if not quite yet, out of a job. His loss is, of course, the public gain. But what shall he do now? Fortunately for him, and even though he may be in the process of losing the aircraft of his specialty, he still has the parachute of medicine as a whole, and by adjusting its cords to direct his descent, he can live to fly to new and perhaps even more important heights.

Before further exploration of the future, let us indulge in a nostalgic backward look which may help to define our present professional assets.

There will be no quarrel in Britain or in the United States with the point of view that, without syphilis as the major representative of the group of venereal diseases, there might never have been a specialty of venereology. Granuloma inguinale, lymphogranuloma venereum, and chancroid are, and have been, relatively uncommon in our two countries, and are for the most part local diseases without serious systemic implications. Until the advent of the sulphonamides and later the antibiotics, gonorrhoea was the province of the surgeon (urologist or gynaecologist), and except for the relatively rare complications of ophthalmia, arthritis, or endocarditis, gonorrhoea was without serious systemic effects except for sterility. Chemotherapy transferred it from surgical to medical—that is, venereological—hands, and has practically abolished its complications; and, since almost all cases can now be cured in about 4 hours, has robbed it of intellectual, if not of epidemiological, interest. Non-gonococcal urethritis remains to plague us, but this too is not a really serious disease. Once its aetiology is known and a successful method of treatment discovered, it will be hardly enough, with gonorrhoea, to attract good young doctors to the specialty of venereology or to hold its present devotees.

But syphilis!—here was an infectious disease of most fascinating interest. Its high incidence and prevalence were of major importance because of its high rate of disability and death. Its exquisite chronicity made it a problem, as one of your actuaries once put it, "from womb to tomb, or from sperm to worm". Its predilection for widespread tissue involvement demanded of the physician who presumed to deal with it a broad knowledge of internal medicine and more than a bowing acquaintance with dermatology, ophthalmology, neuropsychiatry, pathology, immunology, chemotherapy, epidemiology, and public health. The syphilologist, if he were to be a good one, had to make a compromise between the frivolous definitions of the specialist *versus* the general practitioner: the former, one who knows more and more about less and less until finally he knows everything about nothing; the latter, one who knows less and less about more and more until finally he knows nothing about

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everything. The clinical practice of syphilology, in itself and even in the absence of investigative interest, was an intellectual challenge of the first magnitude; and eager young physicians could be attracted to it on the sole ground of the necessity of high professional competence, the acquisition of which would be useful in other fields.

If, at the same time, the syphilologist possessed the inquiring mind, the ability to ask himself questions and to search for their answers, this infectious disease offered avenues of investigation and research interest unmatched by any other infection. From the purely clinical point of view, most of these have perhaps been satisfactorily answered. The biologically-minded clinician regrets, however, that syphilis seems to be vanishing with most of its fascinating and more fundamental riddles still unsolved. Why cannot the organism be grown on artificial media? What about a vaccine for mass immunization? Why does interstitial keratitis characterize the congenital but rarely or never the acquired infection, and why is the exact converse true of aortitis? Why, in the acquired infection, is aortitis usually sharply demarcated in the thoracic aorta only, at or above the the diaphragm? Why do race and sex modify the course of the infection? What mysterious factor, if any other than syphilis, is responsible for the unique neurological syndrome of tabes dorsalis? What are the sites of the actual lesions responsible for the Argyll-Robertson pupil or for gastric crises? What is the influence of climatic conditions on disease manifestations; and are yaws, pinta, and syphilis modified variants of an infection caused by an identical parasite? These and a host of other puzzles may never be solved, since intellectual curiosity in any disease process regrettably diminishes or vanishes as soon as a cure has been found.

But *has* a cure been found? Is it possible that our present enthusiasm for penicillin may be dampened with the passage of time? Only a decade has gone by since this drug first became generally available. Will the next several decades bring forth a fresh multitude of late manifestations of disease in patients whose infections have been kept only dormant in the first years of apparent success?

Is syphilis really disappearing as an important disease problem in North America and Western Europe? And if it is, why is this so? As to the fact itself, there can be little doubt. In these countries, beginning about 1947, there has been an abrupt and precipitous fall in the incidence of fresh infections, in the numbers of persons with symptomatic late syphilis, in admissions to mental hospitals, and in mortality rates.

The actual data for the United States may be summarized graphically. Since 1939, syphilis has been a notifiable disease in the continental United States; and the nation-wide data are collated currently by the United States Public Health Service. The figures to be presented are of course minimal, since (and in spite of existing regulations) not all cases have been reported, especially by private practitioners. Before penicillin became generally available, the error thus introduced was probably minor, since most of the syphilis patients were treated in public clinics, which did report all cases. With the advent of penicillin and the increasing shift of patients from clinics to the hands of private physicians, this error (of failure to report) is probably magnified, perhaps greatly; and this possibility must be kept in mind in evaluating the significance of the abrupt decline of the last 6 or 7 years.

In the civilian population of the continental United States, new cases of reported syphilis (all stages) reached a maximum of 575,600 in 1943 (Fig. 1).

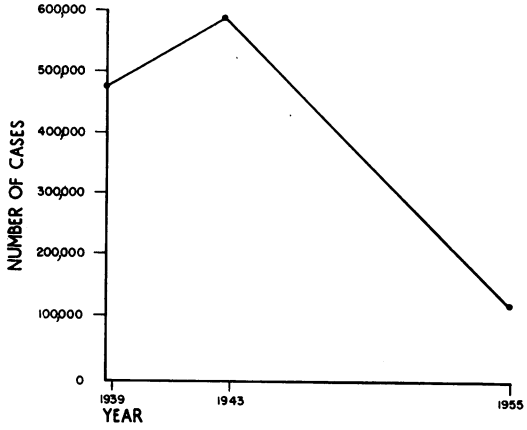

FIG. 1.—Decline of syphilis in U.S.A., 1939–55. New cases reported to U.S.P.H.S. All states reporting; military cases excluded after 1940 (V.D. Fact Sheet, U.S.P.H.S., Dec. 1955).

A decline from 1943 has continued in nearly linear fashion until and including 1955 to a record low point of 122,000 cases, *i.e.* a decrease of nearly 80 per cent. It must be noted that at least a part of the 1939–1943 increase was due to the nation-wide programme of mass blood-testing begun a few years earlier, and the consequent discovery of previously unidentified sero-positive persons with late syphilis. Likewise, at least a part of the 1943–1955 fall in reported cases is due to a continuation of that programme, which is beginning to exhaust the reservoir of unrecognized cases.

The influence of mass blood-testing on syphilis control is only part of the story, however, since other linear declines in syphilis morbidity and mortality had begun in 1939 or earlier, before mass blood-

testing could have had much effect. These data are shown in Fig. 2. Here, for the sake of simplicity, the decline in overall mortality from syphilis, in admissions to psychiatric hospitals because of syphilis (each per 100,000 population), and in infant mortality from congenital syphilis (per 10,000 live births) have been charted for the period 1939–1954 in straight linear fashion, without regard to minor fluctuations. Moreover, for the sake of comparability, the ordinate has been adjusted for each factor, so that each appears to start at the same point. Overall mortality from syphilis has declined from 11·1 in 1939 to 3·1 in 1954 per 100,000 population, and mortality from infantile congenital syphilis has fallen from 0·57 to the near vanishing point of 0·015 per 10,000 population. Admissions to mental hospitals are down from 6·6 to 1·5 per 100,000, and paretic neurosyphilis is at last becoming a hospital rarity.

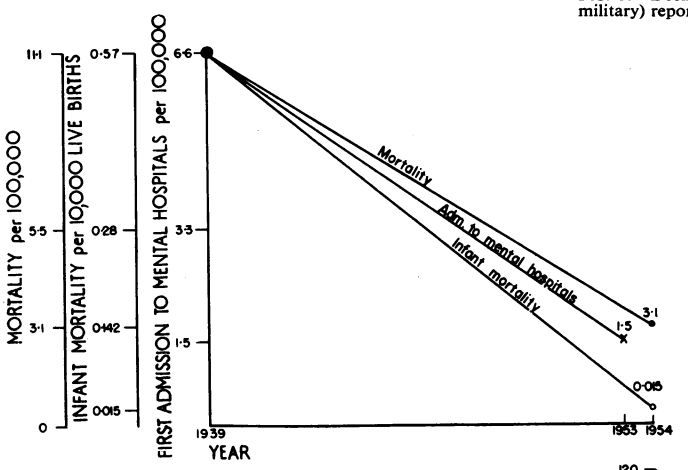

FIG. 2.—Decline of syphilis in U.S.A., 1939–54 (V.D. Fact Sheet, U.S.P.H.S., Dec., 1955).

The decrease in fresh infections, *i.e.* early symptomatic—primary and secondary—and early latent syphilis, has been most dramatic since 1947. An accurate breakdown by stage of infection was not available in the United States until about 1941. Since then, the incidence of fresh infections is fairly accurately known. The actual number of reported cases from 1946 to 1955, is shown in Fig. 3 (which, for purposes of contrast, also includes late symptomatic and late latent cases). The data regarding early syphilis, now recorded as incidence rate per 100,000 population, are shown for a somewhat longer period—1941–1955—in Fig. 4.

Early syphilis reached a peak in 1947, when 106,539 cases of primary and secondary and 107,767 of early latent syphilis were reported. This was a

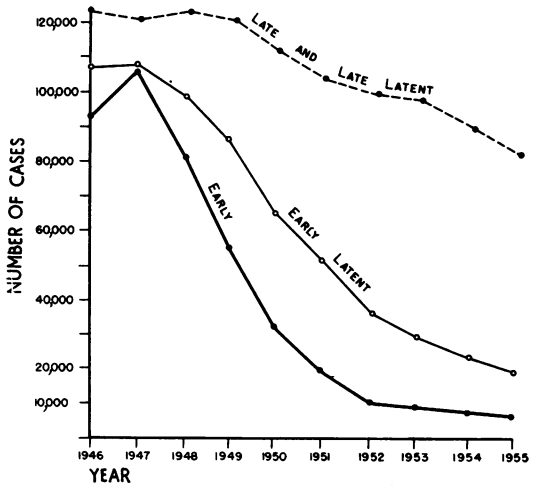

FIG. 3.—Decline of syphilis in U.S.A., 1946–55. New cases (except military) reported to U.S.P.H.S. (V.D. Fact Sheet, U.S.P.H.S., Dec., 1955).

typical post-war peak; of a type observed in each of our earlier wars. The first 2 or 3 years of decline beginning in 1948, could have been, and was by some observers, interpreted as probably due to the usual post-war regression to pre-war levels of incidence or somewhat below. However, the fall continued, so that in 1955 there were only about 27,000 fresh infections with syphilis (6,500 primary and secondary and 21,500 early latent) in a population of about 168 million people. The 1955 incidence rates were 4 and 13 respectively per 100,000 population.

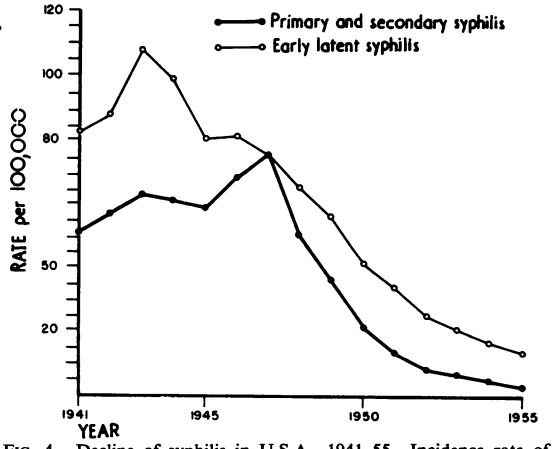

FIG. 4.—Decline of syphilis in U.S.A., 1941–55. Incidence rate of early syphilis per 100,000 population, 1941–55 (V.D. Fact Sheet, U.S.P.H.S., Dec., 1955).

Both Fig. 3 and Fig. 4 suggest that in 1951 the rate of decline in early syphilis levelled off fairly abruptly to something approaching stability. If these data (now in terms of actual cases of primary and secondary syphilis) are charted logarithmically as in Fig. 5, the levelling off process seems much less obvious and not at all abrupt, and the decrease apparently continues.

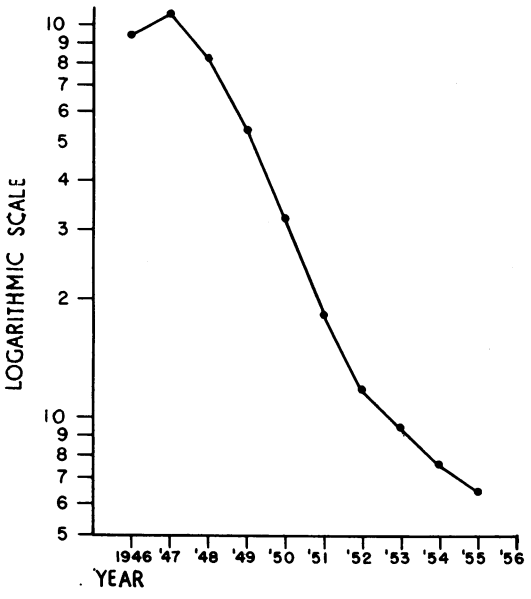

FIG. 5.—Decline of syphilis in U.S.A., 1946–55. New cases of early (primary and secondary) syphilis reported to U.S.P.H.S.

Some epidemiological alarm has been expressed over the fact that in some states, and especially in some urban communities, there appears to be a recent reversal of trend and some apparent increase in fresh infections. Even where this is true, the increase is still slight; it is insufficient to affect the national picture and far from alarming or encouraging (whether one is alarmed or encouraged depends on one's point of view).

It is, of course, not permissible to extrapolate the incidence curve of Fig. 5 into the future. If one could do so, taking into account the logarithmic deceleration to be expected as cases diminish in number, one might anticipate the nearly complete disappearance of syphilis as a public health problem within the next 5 or 10 years.

There has been a striking local effect of all this. In my own clinic in a single Baltimore hospital we had, until a few years ago, several hundred admissions per year of patients with early syphilis; now these are numbered in tens. Until recently we had an almost unlimited supply of mucocutaneous and osseous late syphilis and of cardiovascular and neurosyphilis; now we have too few cases to utilize for teaching small groups of students. A few years ago we had about 2,000 new syphilitic patients and about 40,000 total patient visits per year, and were forced to refer elsewhere 1,000–2,000 new patients a year; now our waiting room benches are nearly empty.

How this came about is in itself an unsolved riddle. In 1950, in the Malcolm Morris lecture delivered in London (Moore, 1951a, b), I pointed out that the morbidity of syphilitic infection had been steadily declining in Western civilization since at least 1860, though the decline had been punctuated by transitory near-epidemic increases associated with wars, political unrest, and population instability. Allowing for these peaks, the 90-year decline in morbidity had been nearly linear, uninfluenced by efforts at "syphilis control" with public health or medical means (the latter including metal chemotherapy and, up to 1948–1949 at any rate, penicillin). Various speculative theories regarding the cause of the 90-year decline were discussed, and the tentative conclusion was expressed that it depended, not on any modification of human behaviour, but rather on the general improvement in socio-economic conditions accompanying the industrial revolution. In 1950, the effect of penicillin could not be assessed; but I ventured the guess that it might not be spectacular.

No sooner had this paper been published, however, than an abrupt further decrease in morbidity became apparent, reaching an unprecendented and still declining low level in 1952–1955. Was this due to the mass application of penicillin in the treatment of syphilis? Nobody knows. Some observers think, and I among them, that the actual treatment of syphilis with penicillin was less a factor than the population-wide use of penicillin and other treponemicidal antibiotics for the treatment of almost every ailment afflicting mankind; but I know of no way to prove or disprove this hypothesis.

However this may be, we *have* reached a low level, so low as to have cast some doubt on the attractiveness of venereology as a specialty. This is true even though the risk is constantly present that a new episode of political unrest and population instability may unhappily produce another new near-epidemic and renew the demand for skilled personnel to handle it.

Meanwhile, whither is the venereologist going?

In this respect there are potential differences between Britain and the United States. In Britain, as I understand it, venereology is a fully-fledged specialty, recognized as such by your National

Health Service Act. Its specialists are perhaps limited to their specialty, both in hospital and clinic appointments and in such private practice as may remain or revive. The career has been thought of, I believe, not only as full time, but also as a permanent job. How to deal with the future may, therefore, be a more difficult problem for you than in the United States, if the full-time nature of the present specialist position is impaired by a decreasing number of patients and its permanence as a career further compromised by the eventual near-disappearance of syphilis. It would be rashly impertinent for me to suggest how a transition from venereology to another professional discipline might, if it becomes necessary, be accomplished in Britain, though I should be very interested to know your own thoughts on the problem.

With us, on the other hand, venereology (that is to say, syphilology) has been usually part-time, or if full-time only temporarily so; there have been no full-time appointments in teaching hospitals. Those physicians interested in clinical syphilology—including the professional care of patients, teaching, and investigation—have been part-time practitioners, dependent on private practice for most or all of their income. For this reason, full-time clinical venereology has never been a practical career for us. Patients would refuse to consult such a specialist, for fear of publicity. The interested physician has been forced, therefore, to camouflage his interest by combining it with another larger medical discipline, sometimes internal medicine, sometimes dermatology or neuropsychiatry. As such a physician sees his syphilis practice slipping away from him, he takes up the remaining syphilitics with his associated interest, and becomes wholly dermatologist, psychiatrist, etc., to whom syphilis is as incidental as to other members of his craft.

From the public health point of view, we have had a different group, made up of doctors whose interest is less clinically minded than that of the professional syphilologist and who are devoted to epidemiology and public health administration. These men have been employed full time as venereal disease control officers in local, state, or Federal Health Departments. Many of them have field experience and degrees in public health. As their venereal disease jobs close down, their transition to other and often broader responsibilities in public health is an easy one.

The economic issue of transition is only one phase of the subject, and perhaps the least important one. What is the venereologist to do with the special talents for medical investigation which he has acquired in his own career, if and when he is abruptly halted for lack of clinical material to study?

Here I can speak only from purely personal belief and experience.

Biologic False Positive Reactor in Relation to Systemic Lupus Erythematosus (SLE)

Growing out of syphilology is the pressing problem of biologic false positivity (BFP) in serological tests for syphilis (STS), its incidence, aetiological background, and management. This has been my personal problem in clinical investigation for the past 7 years; and it seems likely to occupy me and others for many years to come.

This study was made possible late in 1948 by the demonstration of the treponemal immobilizing antibody and the subsequent use of the TPI test and its simpler derivatives: complement-fixation (TPCF), agglutination (TPA), and immune-adherence (TPIA). These tests are valid in the differentiation of syphilitic infection from the BFP phenomenon with a high degree of certainty, the margin of error, allowing for technical difficulties of these complicated procedures, being probably about 2 per cent.

Two types of the BFP phenomenon are known*:

(1) *Acute BFP Reactions.*—These have two characteristics:

(*a*) they appear during or shortly after a large group of readily identifiable infectious diseases (bacterial, viral, plasmodial, and rickettsial);

(*b*) they disappear spontaneously (revert to seronegativity) promptly on recovery from the acute infectious process or shortly thereafter (almost always within 6 months or less).

About 20 per cent. of the normal adult population are believed to be potential acute BFP reactors under the appropriate infectious stimulus. Because of the evanescent character of these reactions, they are often overlooked for lack of serial STS during and after acute illnesses; and they have not been adequately studied for their relationship to disorders of gamma globulin (DGG). They leave behind no clinical sequelae, may be dismissed as unimportant, and are not further considered here.

(2) *Chronic BFP Reactions.*—These also have two characteristics:

(*a*) they have no temporal relationship to any known infectious disease (except leprosy, where, though frequent, chronic reactions are unimportant in the United States because of the rarity of leprosy itself);

(*b*) they do not disappear spontaneously, but persist for months, years, and perhaps for the duration of life.

* Much of the language of the BFP discussion is quoted directly from the *Bull. rheum. Dis.* (1956), **6**, 109.

Incidence and Prevalence of BFP Reactors.—Accurate data on these points do not exist because of lack of population surveys with parallel standard STS (lipid antigens) and TPI tests. It has, however, been estimated that, of routinely discovered sero-positive reactors drawn from a white population group of upper socio-economic and educational level from the Northern United States, about 40 per cent. can be shown by means of negative TPI tests not to have syphilis but to be BFP reactors.

Aetiological Background of the Chronic BFP Phenomenon.—In 1949, when the existence of the chronic BFP phenomenon was firmly established, nothing was known of its aetiological background except the clinically unimportant fact that it often occurred in leprosy, and the unproved suspicion that it sometimes (frequency unknown) occurred in systemic lupus erythematosus (SLE). It was thought essential, therefore, to undertake a detailed clinical and laboratory study of a group of chronic BFP reactors, on a long-term basis covering years of periodical observation of members of the group. Such a study, still continuing, has been in progress for 7 years; and early results have been reported by Moore and Lutz (1955).

Laboratory Data.—At the start of the study, patients were subjected to many types of laboratory survey, gradually eliminating those which appeared unproductive. At present there has emerged a pattern of laboratory abnormalities which is strikingly uniform, including:

(1) *Anaemia*, usually mild to moderate normocytic or microcytic hypochromic, often spontaneously fluctuating in degree (common in the females, but rare in males).

(2) *Eosinophilia.*

(3) *Thrombocytopaenia* (when haemorrhagic phenomena exist).

(4) *Disorders of Gamma Globulin* (DGG), especially those drawn from the list in Table I, including:

(*a*) BFP reaction (100 per cent.).

(*b*) Elevated erythrocyte sedimentation rate (Wintrobe), frequent (twice as common in females) and persistent.

(*c*) Abnormal protein flocculation tests, in the absence of clinical or other laboratory evidence of liver damage: (*i*) Cephalin flocculation,
(*ii*) Elevated thymol turbidity.

TABLE I

EVIDENCES OF PLASMA PROTEIN ABNORMALITIES IN SLE
(Listed in probable order of appearance)

(1)	Elevated sedimentation rate
(2)	BFP – STS
(3)	Positive protein flocculation tests (cephalin and thymol turbidity)
(4)	Altered electrophoretic pattern (gamma and alpha globulins)
(5)	High fibrinogen and gamma globulin concentrations
(6)	Positive LE cell phenomenon
(7)	Anticoagulant in plasma
(8)	Autohaemagglutination and positive Coomb's test

(*d*) Elevated serum globulin and a tendency to reversal of the A/G ratio (relatively infrequent).

(*e*) Altered electrophoretic pattern, with increase of gamma and sometimes alpha-2 globulin.

(*f*) The LE cell phenomenon.

Clinical Data.—As from November, 1954, 148 patients were available for analysis, who had been under observation for from 1 to 20 years. Of these, 70 per cent. (104) were female; 30 per cent. (44) were male. Most patients of both sexes were young (under the age of 30). At the time of first discovery of the positive standard STS, two-thirds of the patients regarded themselves as in perfect health and in the remaining one-third, the presenting complaints were in general minor and not pertinent to the eventual definite and tentative diagnoses listed in Table II. When, during prolonged observation, disease appears in these patients, it has tended to form a remarkably uniform pattern: usually episodic, sometimes mild, sometimes more portentous, sometimes serious. Such episodes are usually punctuated by longer or shorter periods of remission, lasting weeks, months, or even many years. From the clinical point of view, the diagnoses, definite or tentative, were made as from November, 1954 (Table II).

TABLE II

AETIOLOGIC BACKGROUND (CLINICAL) IN 148 CHRONIC BFP REACTORS

Diagnosis	Cases	
	No.	Per cent.
SLE proved (clinical course + LE cells)	10	6·7
Rheumatoid arthritis (clinical course + radiological evidence; no LE cells)	8	5·3
SLE (or other collagen vascular disease) strongly suspected but not proved	45	30·4
Bizarre undiagnosed serious illness	5	3·4
Total	68	45·8

The 45 patients from Table II listed as "suspected SLE (or CVD)" have shown at least one and usually several of the signs or symptoms of disease listed in Table III.

TABLE III

CLINICAL MANIFESTATIONS IN THE 45 SLE (OR CVD) SUSPECTS FROM TABLE I

Symptom or Sign	No. of Cases
Arthralgia and/or Arthritis (usually mild)	31
Fever (usually low grade)	22
Malaise (significant)	16
Mucocutaneous Lesions (usually bizarre)	15
Ocular Lesions (inflammatory:- anterior or posterior uveitis; cytoid bodies)	9
Psychoses (severe enough to demand psychiatric care)	8
Serositis	6
Splenomegaly	5
Purpura	4
Raynaud's Phenomenon	4
Convulsions	4

In addition, there are one to three examples each of major phlebothrombosis, nephritis, photosensitivity, chorea, haematuria, and subcutaneous nodules.

These laboratory and clinical changes, observed in a group of chronic BFP reactors, are strikingly similar to those known to occur in full blown "collagen vascular disease", especially rheumatoid arthritis and SLE. It is not known, but would be of interest to determine, whether similar laboratory evidence of DGG occurs in leprosy, in which the chronic BFP phenomenon frequently occurs.

It is suggested that

(*a*) the chronic BFP phenomenon is one manifestation of tissue injury, chiefly of collagen and vascular tissue, due to an unknown agent or antigen;

(*b*) one of the first evidences of such injury is an as yet unidentified alteration of serum globulin (DGG), quantitative, qualitative, or both;

(*c*) this immunochemical disturbance is responsible for a number of the observed laboratory phenomena;

(*d*) these evidences of DGG may progress slowly in seriatim fashion, with the appearance of L.E. cells late, rather than early, in the course of actual disease;

(*e*) DGG usually, though not necessarily always, precedes by months or even many years, clinical evidence of disease and may persist for many years in the absence of any detectable related clinical illness.

It is suggested further that CVD (especially SLE) is

(*a*) much more common than has heretofore been recognized;

(*b*) often exceedingly chronic, lasting years or even decades;

(*c*) often relatively benign;

(*d*) not uniformly fatal.

It is also suggested that this clinical material of chronic BFP reactors offers an unparalleled opportunity for the future (rather than retrospective) study of the natural history of disease, especially SLE, and its prognosis. It begins with persons who are for the most part clinically well rather than ill; who enter the study series because of the accidental (*i.e.* routine) discovery of a laboratory abnormality—the chronic BFP phenomenon; and in whom clinical developments can be traced from health to illness and in due course to eventual death. Prolonged periodical observation of the chronic BFP reactor is obligatory, and may lead to profitable prophylactic treatment, with the lengthening of periods of remission and possibly of life span.

There is also suggested to the investigator a need for experimental, perhaps especially immunochemical, study of the nature of this type of DGG and of the tissue injury which causes it. Such studies offer some chance of development of an immunologic test for the early diagnosis of CVD, especially SLE and may throw light on its obscure aetiology.

Of the eighteen to twenty major clinical manifestations of SLE, not a single one is in itself diagnostic of the disease, not even discoid lupus. All except discoid lupus may and do occur in other disease pictures; as for example, arthritis, fever, serositis, psychoses, ocular lesions, etc. The diagnosis of SLE is not necessarily suggested by the occurrence of any one of these alone. It is, however, strongly suggested when an illness is episodic, punctuated by periods of relative or complete health, and when two, three, or more of these isolated symptoms and/or signs occur in serial fashion.

There is a striking parallel to be drawn between the present state of our clinical diagnosis of SLE and that of syphilis before Wassermann's serological discovery in 1906. Both are chronic diseases, the manifestations of which may extend over decades. In both, the clinical evidence of disease is often episodic, the tissue damage is widespread, affecting many different systems in the body, and the common background of apparently unrelated clinical phenomena (involving, *e.g.*, the mucocutaneous tissues, the eyes, the heart, and the nervous system) may be made clear only by the passage of time. In syphilis, these widespread chronic disorders were suddenly and abruptly tied together by a diagnostic immunologic test. In SLE, this is not yet possible. The L.E. phenomenon does not serve the purpose since, as I have emphasized, it is a later rather than an early development, and is indeed only inconstantly present, even in patients with acute and florid disease.

The most fruitful field for the study of the natural course of SLE is in young women of the age groups 15–35 years. The demonstration of disorders of gamma globulin (DGG) in verified SLE, and more importantly, in apparently healthy BFP reactors, suggests the use of such tests as a rough screening device in groups of young sero-negative females, ill with a single manifestation which *might* be an episode in early SLE; among these, for example, psychoses, mild arthralgia or arthritis of smaller joints (but lacking radiologic evidence of rheumatoid arthritis), and discoid lupus. Those found to have DGG should then be thoroughly studied medically, and subjected to long-term follow up.

Transition from Syphilis to Chronic Disease in General

The syphilis clinic which, like my own, is staffed with specialists in internal medicine serving as "family doctor" to its patients, responsible for their total as well as special medical care; and devoting

itself for many years to long-term follow-up of its patients, is in an ideal position to transfer slowly its interests, clinical and investigative, to non-infectious chronic disease of various types. It is ideally equipped for the all important study of the nearly unexplored natural history of various chronic disorders.

Chronic disease must be sharply differentiated from geriatrics or gerontology. Our ageing populations are of importance because of their rapidly increasing numbers, and studies of the physiology and pathology of the ageing process itself are urgent. But most of the diseases which afflict the elderly have their beginnings in much earlier life; and in addition, the aged have no monopoly of chronic illness, which is prevalent in any age group, The broken down patient who represents the end-product of degenerative disease is of far less interest to the biologically minded physician than the unsolved questions of how he got that way.

Such a transition of interest from a single chronic disease, syphilis, to the much broader field of chronic illness in general is in fact in progress in the Johns Hopkins Hospital. It has already reawakened flagging intellectual curiosity and interest in our professional clinic staff. From the point of view of teaching, especially for post-graduate students, it has resulted in the early experimental organization of a course designed primarily for public health officers. We regard our broadened and infinitely more complex problems as a challenge for the future much greater than that posed by syphilis at the start of my own professional career 40 years ago.

And, hopefully, we are inclined to think that our six-engined atomic powered supersonic bomber of chronic illness is a little less likely to be shot from under us within a professional lifetime than was our propeller-driven syphilis fighter craft. If we are wrong—if even chronic illness of all sorts is eventually conquered so that "people never die, they just fade away"—well, then we can make our last transitional shift, to obstetrics or psychiatry!

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DISCUSSION

The President—Mr. A. J. King (*Whitechapel Clinic, The London Hospital*) said that he had been interested to hear the views of Dr. Earle Moore on the future of venereology, but he felt there was a strong divergence of view between American colleagues working in the subject and venereologists in Great Britain. He felt that this difference arose from concentration of interest in the United States on the problem of syphilis. American achievements in this field, and particularly those of Dr. Moore and his colleagues at the Johns Hopkins Hospital, had been outstanding, and, now that the incidence of syphilis had diminished so strikingly in Western countries, it was inevitable that they should regard the subject as finished and look for other activities. In Great Britain the venereologist's interest covered the broader field of the venereal diseases in general. There remained important unsolved problems such as the so-called "non-specific" genital infections and trichomonal infections in male and female. In Mr. King's own clinic young men often came to work to fill in time between appointments or to study for higher examinations. They had no great idea of the subject when they came, but they became interested and some of them stayed. With the exception of syphilis, all the venereal diseases encountered in Great Britain seemed to be increasing in incidence, and, for those who took up this field of endeavour, there was the prospect of a lifetime of absorbing work and no difficulty in obtaining consultant appointments for which there would soon be more vacancies than applicants. Even syphilis was not yet a back number; there was no dearth of late cases and the incidence of infectious syphilis throughout the world was so high that no one could regard that problem as solved.

Dr. G. L. M. McElligott (*St. Mary's Hospital, London, and Adviser in Venereology, Ministry of Health*) recalled that, when he heard Dr. Moore's Malcom Morris lecture in 1950, he had not been able to agree that the dramatic fall in syphilis since the end of the war was largely unconnected with the general use of penicillin; he was glad to hear that Dr. Moore had now modified his opinion in the light of subsequent events. The meeting might be interested to know that in 1955, for the first time since 1946, the clinic figures for early syphilis in both sexes in England and Wales had failed to fall, and that in London and Merseyside they had shown an appreciable rise. Whether that was a "flash in the pan" remained to be seen, but it might not be unconnected with the arrival of many thousands of immigrants from territories where the prevalence of syphilis was still high. Positive serum tests for syphilis were not uncommon among these patients and, though syphilis or yaws was doubtless the cause in most cases, he would be interested to hear from Dr. Moore the extent to which disseminated lupus erythematosus was encountered among American negroes.

Finally, he wished to remind Dr. Moore that the comprehensive speciality of venereology was largely a British institution and hardly existed as such in other countries where it was usually partitioned between dermatologists, urologists, and gynaecologists.

Dr. R. R. Willcox (*St. Mary's Hospital, London*) congratulated Dr. Earle Moore on his paper, and for doing so much in drawing attention to the importance of false-positive serum tests for syphilis and their relation to systemic lupus erythematosus. The British trends in the incidence of venereal diseases had closely paralleled

American experience, and the possibility of replacing the management of syphilis with that of systemic lupus erythematosus was an attractive proposition, more so in private, perhaps, than in hospital practice. However, it was not possible to diagnose a false-positive serum test for syphilis, to arouse suspicion of latent lupus erythematosus, without the treponemal immobilization test. So far in Britain, they had not been in the happy position of having this test available to all venereologists in all patients in whom it was indicated. The confusing clinical pictures in systemic lupus erythematosus as presented by Dr. Moore were probably similar to those seen in syphilis before the days of serum tests. At that time, successive symptoms, such as sore throats and headaches, to be replaced in later years by nervous breakdown, lightning pains, or ataxia, must have been equally confusing, but once serum tests for syphilis were developed, everything fell into place. Dr. Willcox asked Dr. Moore whether, from the basis of his figures in Baltimore, he had made any estimate of the possible total numbers of cases of systemic lupus erythematosus in the U.S.A.

Dr. Gerald Knight (*General Hospital, Birmingham*), referring to Dr. Moore's simile of syphilis as an aeroplane, said that, although it had been shot down, they were not quite sure how that had been achieved or whether it would take off again. If the simile were extended to gonorrhoea, they had shot the aeroplane down, but it had in fact taken off again, and as far as non-gonococcal urethritis was concerned they had not yet succeeded in bringing it down at all. Dr. Knight also suggested, as possible extension of activities for venereologists, medical urology generally and the large field of male infertility.

Dr. C. S. Nicol (*St. Thomas's and St. Bartholomew's Hospitals, London*) said that he was sure that Dr. Moore would forgive him (as his senior British post-graduate student of Medicine at the Johns Hopkins Hospital) if he did not share his pessimism about the future of venereology in Great Britain. Recent statistics had shown that the total number of new patients attending the clinics was greater than before the second world war. Although the number of patients with syphilis had diminished markedly, the number of those with gonorrhoea was still high and had not markedly diminished since 1951. There was also evidence that the number of patients with non-gonococcal genital infections was actually increasing. He did not feel that the number of people seeking advice in clinics would diminish as long as moral standards remained at the present low level. As long as promiscuity was widespread, many infections would occur. The increasing number of negroes in the population would certainly not alleviate this problem. At one of his clinics (St. Thomas' Hospital) 17 per cent. of new patients in the first half of 1956 were negroes.

Dr. Moore had suggested ways in which American venereologists could shift their interests. He himself felt that British venereologists could best strengthen their position by applying high medical standards to their work. Certain basic investigations had been employed in the United States (notably in California) for diagnostic screening of out-patients, and several papers on this subject had been published recently in Dr. Moore's own Journal (*Journal of Chronic Diseases*). At one of his own clinics (St. Bartholomew's Hospital) Dr. Nicol had been using a similar procedure since the beginning of the year. All new patients (irrespective of the presence or absence of venereal disease) were given a full medical examination including a record of blood pressure and urine-analysis for albumen and sugar. The patient's height and weight were also recorded. Blood was taken for WR, Kahn, and GCFT, and the male nurse in the department had been trained to do a haemoglobin estimation (on the same blood specimen). A routine *x*-ray of the chest was taken except in those who had been *x*-rayed elsewhere in the previous 6 months. Other investigations were ordered as indicated. He considered it to be very important that diseases which could be diagnosed in any patient attending a hospital should not be missed through lack of a full examination and certain basic tests. Such a patient, if symptom free, might not again seek any form of medical advice for many years. He felt that British venereologists could lead the way in introducing this policy in their clinics, and would thus gain in standing *vis-à-vis* their colleagues in other special subjects in the field of medicine.

Dr. Douglas J. Campbell said that he had had the pleasure of hearing Dr. Earle Moore speak on the transition in the role of the venereologist, a month before at the Johns Hopkins Hospital, Baltimore, where the audience had included several delegates from behind the Iron Curtain. All were undeniably convinced and interested, and he felt that their colleagues in medicine as well as the administration must surely appreciate that, far from having little work to do, the responsibility of the venereologist to society was even greater than before.