ABSTRACTS

This section of the journal is published in collaboration with the two abstracting journals, ABSTRACTS OF WORLD MEDICINE and OPHTHALMIC LITERATURE, published by the British Medical Association. The abstracts are divided into the following sections:

Syphilis (Clinical, Therapy, Serology, Biological False Positive Phenomenon, Pathology, Experimental).
Gonorrhoea.
Non-Gonococcal Urethritis and Allied Conditions.
Reiter's Disease and Allied Conditions.
Antibiotics and Chemotherapy.
Public Health and Social Aspects.
Miscellaneous.

After each subsection of abstracts follows a list of articles that have been noted but not abstracted.

SYPHILIS (Clinical)


The authors of this long paper from the Centre Hôpitalier Universitaire, Toulouse, have noticed in recent years three common factors amongst their cases of early infectious syphilis. These are the large number of patients presenting with positive serological tests but no clinical manifestations of disease, the increasing importance of undiagnosed and undetected syphilis in the population, and the frequency of re-infections. This last aspect is the subject of the present paper, which is based on the findings in 454 cases of early syphilis seen in Toulouse between the years 1962 and 1964. There were 45 re-infections (10 per cent.) and these occurred in 42 patients. [For the detailed analysis of these findings the original should be consulted.]

The authors discuss the difficulties of distinguishing between relapse and re-infection. Treatment and surveillance are also considered and it is concluded that the results of treatment are as satisfactory in cases of re-infection as in those of primary infection. The use of penicillin alone in therapy is considered to produce such a removal of organisms from the body that immunological reactions do not have time to become established, and the patient is therefore vulnerable to another infection. In addition, epidemiological circumstances among prostitutes and homosexuals are regarded as important factors contributing to the frequency of re-infections.

It is recommended that patients should be warned that one attack of syphilis does not protect them from a second infection, and those who are promiscuous should be encouraged to have regular blood tests. Doctors should also be reminded that the danger of syphilis is related to the number of undiagnosed cases in a community and that re-infections can occur without obvious symptoms or signs. The growing frequency of re-infections should lead to a reappraisal of the diagnostic, prognostic, and immunological factors of syphilis.

R. D. Catterall


SYPHILIS (Therapy)

Jarisch-Herxheimer-Lukasiewicz Reaction in Congenital Syphilis in Infants. (In Polish.)


From 1947 to 1964, 36 cases of early congenital syphilis were treated with penicillin in the Dermatological Clinic of the Medical Academy in Cracow. The authors review these cases with regard to the frequency of occurrence and severity of the febrile Jarisch-Herxheimer-Lukasiewicz (J.H.L.) reaction. The severity of the reaction was assessed by the difference in temperature measured in the rectum before and after the first injection of the antitreponemal drug, a rise of 1°C. or less being classified as a moderate and of more than 1°C. as a severe reaction. The infants were divided into three groups:

1. Eight neonates (3 premature) who initially were given 100,000–200,000 units aqueous penicillin G intramuscularly. The J.H.L. reaction was severe in three and moderate in two, and did not occur in six. The last six included a baby who was admitted to hospital 24 hours after birth with syphilitic peripneumatis, icterus, and hepatosplenomegaly, and died after 3 weeks. The average rise in temperature in those cases in which the reaction occurred was 1.2°C.

2. Seventeen infants aged from 2 to 12 months, sixteen of whom received 100,000–200,000 units aqueous penicillin G and one 300,000 units procaine penicillin as the initial dose. The J.H.L. reaction occurred in ten (severe in five) and did not occur in seven. The average rise in temperature was 1.4°C.

3. Eight infants aged from 1 to 11 months who were given 0.1–0.2 ml. 10 per cent. bismuth oxybenzoate intramuscularly 24 hours before treatment with penicillin was started. All had a J.H.L. reaction, two after bismuth (one severe), three after the first injection of penicillin (two severe), and three after both bismuth and penicillin (in two the reaction after penicillin was more severe than after bismuth). The average rise in temperature was 1.2°C. after bismuth and over 1.5°C. after penicillin.

(Lukasiewicz was a 19th and early 20th century Polish syphilologist who described the reaction independently from the two other authors with whose names it is usually associated outside Poland.)

L. Z. Oller

SYPHILIS (Serology)


Automated Reiter protein complement-fixation tests were performed on 250 sera in parallel with a manual test at another laboratory. In the former method (Pugh and Gaze, Brit. j. vener. Dis., 1965, 41, 221), 1-5 M.H.D. complement and 1-33 M.H.D. haemolysin were used. 206 sera gave negative and 29 positive results by both methods. Six sera were found positive by the automated method but two were negative and four anticomplementary when tested manually. A further nine sera were negative by the automated but positive by the manual method. It has been suggested that sera become more reactive in the RCPF after storage at low temperatures, so a further 250 sera were tested by both manual and automated methods after storage in a deep freezer for 3 days. Eleven sera gave discrepant results and these were sent to a second laboratory for independent manual testing. The results were:

<table>
<thead>
<tr>
<th>Laboratory 1</th>
<th>Laboratory 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated positive, manual negative, 4</td>
<td>Manual positive, 2, negative, 2</td>
</tr>
<tr>
<td>Automated negative, manual positive, 7</td>
<td>Manual negative, 7</td>
</tr>
</tbody>
</table>

The authors conclude that the automated and manual methods give satisfactory agreement when sera are deep frozen for 3 days before testing.

A. E. Wilkinson

[Reprinted from the Bulletin of Hygiene, by permission of the Editor.]


From the Center for Health Sciences, University of California, Los Angeles, the authors describe a new, total dose of 4.5 or 5 g. The patients were followed up by clinical examination and serological tests for a period of 16 months. Tests on the cerebrospinal fluid were not performed.

From the results of this trial the author concludes that intravenous oxytetracycline to a total dose of 10 g. has an effect on primary and secondary syphilis similar to that of penicillin, as judged by clinical findings and serological tests. He suggests that it represents an acceptable alternative to penicillin in the treatment of early syphilis in patients who manifest penicillin sensitivity.

R. D. Catterall
rapid, macroscopic diagnostic test for syphilis which they call the latex serological test for syphilis (latex-STS). The antigen used in this test consists of polystyrene latex particles 0.15-0.4 m in diameter which are coated with cardiolipin and Reiter protein antigens and suspended in glycine-buffered saline at pH 8.2, brilliant green being added to facilitate reading. One drop of antigen is added to two drops of inactivated serum on a ringed slide and mixed with a wooden applicator; the slide is then gently tilted up and down for 2 minutes and examined macroscopically for flocculation.

In a comparative trial on 540 sera and spinal fluids the results of the latex-STS were compared with those of the VDRL tube test and, in some cases, those of the TPI test. The results are summarized in the following table [which accounts for only 500 of the specimens tested].

<table>
<thead>
<tr>
<th>Diagnostic Category</th>
<th>Sera</th>
<th>TPI Test</th>
<th>VDRL Tube Test</th>
<th>Latex-STS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syphilis, all stages</td>
<td>90</td>
<td>66</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Antenatal and pre-marital tests</td>
<td>100</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Biological false positive sera</td>
<td>100</td>
<td>29</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>&quot;Problem&quot; sera</td>
<td>100</td>
<td>36</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Sera selected for reproducibility</td>
<td>100</td>
<td>88</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Spinal fluids</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

The test is thought to offer advantages as a screening procedure because minimal apparatus is needed and it can be performed quickly.

[The antigen used was prepared commercially; neither the method used to sensitize the latex particles nor the reason for sensitizing with two separate antigens is given.]

A. E. Wilkinson


BIOLICAL FALSE POSITIVE PHENOMENON


The records of 347 patients who had been diagnosed as having biological false positive reagin tests for syphilis on the basis of negative TPI tests were reviewed at the University of California School of Medicine; 176 of the patients were re-examined, the TPI test repeated, and an absorbed fluorescent treponemal antibody test performed as well.

211 of the patients had originally shown transient BFP reactions lasting less than 6 months; 76 were re-examined and VDRL, TPI, and FTA-ABS tests were found negative in all. 136 of the original group had the chronic type of BFP reaction lasting for more than 6 months and TPI tests had been negative on one or more occasion; 100 of these patients were re-tested and found to fall into three groups:
(a) Fifty had negative FTA-ABS and TPI tests; 39 of these had serious systemic disease and in 24 cases this was thought to have an immunological basis. 25 per cent. of these sera had anti-nuclear antibodies, 27-6 per cent. rheumatoid factor, 27-2 per cent. hypergammaglobulinaemia, and LE-cells were present in 11 per cent. These patients were considered to be true chronic BFP reactors.

(b) 38 patients had negative TPI tests, but the FTA-ABS test was positive; seven of these had clinical evidence of late syphilis, eleven a variety of conditions, and the remainder appeared well.

(c) Twelve patients had reactive TPI and FTA-ABS tests; six had clinical evidence of late syphilis and all were re-diagnosed as having syphilis.

Thus, of the 100 patients, nineteen had definite evidence of syphilis and in a further 31 this was suspected because of reactivity in the FTA-ABS test. It has been suggested by Neblett et al. (J. Invest. Derm., 1964, 43, 439) that sera containing anti-nuclear antibody may give false positive FTA tests, but tests on sera from thirty patients with systemic lupus erythematosus or scleroderma which contained this antibody gave negative TPI, FTA-200, and FTA-ABS tests.

The authors consider that, because of its high sensitivity, the FTA-ABS test should be used to distinguish syphilitic from BFP reactions and that patients whose sera give negative TPI but positive FTA-ABS tests should be managed as having syphilis.

[The TPI test is known to be sometimes negative in syphilis of very long standing and the average age of the patients in groups (b) and (c) was 53 and 61 years. These results emphasize the unwisdom of blind reliance on serological tests and the necessity for clinical judgement.]

A. E. Wilkinson


Sera from nine patients giving the chronic type of biological false positive (BFP) reaction with cardiolipin antigen, from six normal rabbits and from eight patients with syphilis of from 30 days to more than one year's duration were treated with 2-mercaptoethanol (2-ME). This did not affect the titres of the human syphilitic sera in the Wassermann reaction, Reiter protein complement-fixation, or treponemal immobilization tests. Earlier work (Tringali, Riv. Ist. sieroter. ital., 1965, 40, 243) had shown reductions in reagin titre in early syphilis in rabbits. Treatment with 2-ME abolished reactivity of the nine human BFP sera with cardiolipin antigen and of the six normal rabbit sera with both cardiolipin and Reiter protein antigens.

Fractionation of normal rabbit and human BFP sera on Sephadex G 200 showed that reactivity of these sera with cardiolipin antigen was found among the IgM globulins. It is suggested that treatment with 2-ME may be a simple way of differentiating BFP from syphilitic sera.

A. E. Wilkinson


These studies were carried out on 651 healthy recruits, most of whom had been vaccinated in childhood. VDRL and Kahn tests performed before immunization were all negative. The men were subjected to immunization against tetanus, typhoid, mumps, diphtheria, and poliomyelitis, and were vaccinated against smallpox. Serum tests were repeated and TPI tests performed on all sera giving positive reactions.

In the first series, reagin tests were performed on sera from 173 men 2 weeks after completion of the whole immunization programme; there were ten (5-8 per cent.) positive results. Blood was collected from 145 men 2 weeks after all the immunizations except smallpox vaccination had been completed; there were no positive reagin tests. The same recruits were then vaccinated and tested 2 weeks later, when fifteen (10-3 per cent.) positive results were found. The influence of the type of smallpox vaccine was investigated by testing 106 men who had received calf lymph vaccine 2 weeks previously; this produced seven (6-6 per cent.) positive reagin tests, and four (3-9 per cent.) such reactions were found after the same interval in 103 men who had received vaccine made in chick embryos. A further group of 124 men were vaccinated with a non-infectious vaccine prepared by ultraviolet irradiation of vaccinia virus; there were no positive results when these men were tested 2 weeks later. They were then re-vaccinated with living virus and tested a fortnight later when four sera gave positive results with one or other of the two reagin tests. The incidence of non-specific results among the whole series of 651 men was 6-1 per cent. there being 21 positive Kahn tests and 33 positive VDRL tests. Positive reactors were followed up at monthly intervals and all had reverted to negative after 3 months. One serum gave a positive TPI test, and serum from the same man taken before any immunizations had been started was also found to be TPI-positive although the reagin tests were negative.

A. E. Wilkinson


SYPHILIS (Pathology)


SYPHILIS (Experimental)


Lysozyme Activity of the Serum in Experimental Syphilis in Rabbits.


GONORRHOEA


L-forms were produced from one of four strains of gonococci by methods found successful with meningococci (Roberts and Wittler, J. gen. Microbiol., 1966, 44, 139). Suspensions of gonococci in broth were inoculated on to gradient plates of a medium containing Difco Brain Heart Infusion with 1-2 per cent. agar, 10 per cent. sucrose, 0.5 per cent. yeast extract, 10 per cent. inactivated (60°C. for 30 min.) horse serum, and benzyl penicillin to a final concentration of 100 or 1,000 units/ml. The plates were incubated at 35–37°C. in a moist atmosphere containing CO₂ in candle jars. After 8 to 10 days very scanty L-colonies appeared and were transferred by re-streaking the medium with the agar block bearing the colonies; 4 days later, revertant gonococci appeared and transfer of broth cultures of these to fresh gradient plates containing penicillin produced a sparse growth of L-forms; these grew better after serial passage. At first L-forms transferred to penicillin-free medium readily reverted to the bacterial form, but after maintenance on medium containing penicillin for ten or more passages they appeared more stable and showed much less tendency to revert.

Initially the L-forms had large central cores with little peripheral extension on the surface of the medium. Later, in cultures which were growing well, the cores were smaller with well-defined peripheries made up of granules and vacuolated large bodies; these appearances are very well shown in the illustrations. Optimal cultural conditions for the production of L-forms were found to be: pH 7.2–7.4; agar, 1-1-1.3 per cent.; sucrose, 10-20 per cent., and 10-20 per cent. horse serum; rabbit or human serum was ineffective. The temperature range was 34–38°C. and CO₂ was required.

The parent strain and its derived L-form showed equal sensitivity to bacitracin, vancomycin, rifampicin, novobiocin, tetracycline, and erythromycin, but the L-form was resistant to penicillin, ampicillin, methicillin, cephalothin, and cycloserine. A. E. Wilkinson [Reprinted from the Bulletin of Hygiene, by permission of the Editor.]


Of 69 patients suffering from post-gonorrhoeal urethral stricture, 32 per cent. had blood pressure higher than 140/90 mm.Hg. This was a significantly higher incidence of hypertension than the 15 per cent. found in a random sample of 100 male surgical patients, who were distributed among various age groups in the same proportions as the stricture patients.

Over 90 per cent. of the stricture patients showed evidence of urinary infection on admission to the hospital. It is suggested that ascending infection in stricture patients causes chronic pyelonephritis which either directly causes hypertension or potentiates the development of hypertension in susceptible individuals. However, the similarity in age distribution between the stricture patients and male patients with essential hypertension implies that the aetiological association of stricture and hypertension may be due, at least in part, to the superimposition of two diseases which independently affect patients of the same age group. [Author's summary]


In a discussion of the present importance of Credé's prophylaxis representatives of ophthalmology, paediatrics, obstetrics, dermato-venerology, and legal medicine took part. The authors evaluated their personal experiences, positive as well as negative, with the traditional prophylaxis and the recently introduced drugs, particularly Septonex. Abolition of Credé's prophylaxis is out of the question owing to the increasing incidence of gonorrhoea and to the questionable curability of chronic gonorrhoea in women. It is recommended that the technique of Credé's prophylaxis be improved and that more care is taken of the general hygiene of the infant and the mother, and of the delivery wards in the hospitals. M. Klima
ABSTRACTS


NON-SPECIFIC URETHRITIS AND ALLIED CONDITIONS

Infection by TRIC Agent and Other Members of the Bedsonia Group; with a Note on Reiter's Disease.


The cases studied fell into three clinical groups: trachoma, inclusion conjunctivitis, and TRIC agent punctate keratoconjunctivitis (TPK) as an intermediate.

These are not different diseases, but different syndromes produced by infection by the same TRIC agent. In adults the infection occurs at the age of maximum sexual activity and seldom was secondarily infected by bacteria.

Each syndrome presents with acute inflammation which cannot be differentiated clinically but may be by laboratory methods—"proto-TRIC infection". The others, however, may be diagnosed clinically at later stages only Trachoma IV usually going to scarring. Atypical cases may be seen: thus scarring may be seen in inclusion conjunctivitis or TPK. Lymphadenitis, rhinopharyngitis, and perhaps joint swelling may occur. The acute papillary conjunctivitis and ragged corneal epithelial lesions of Reiter's disease suggest a clinically different aetiology, but this may not be so.

M. A. Bedford


38 babies were studied suffering from ophthalmia neonatorum. The disease manifested itself as a mucopurulent conjunctivitis with swelling of the lids; fourteen babies showing this on the first day of life, most within 2 weeks of birth.

One baby produced a Bedsonia from its vagina and from its eye and a Bedsonia was isolated from the cervix and rectum of the mother.

The usual cases showed the congested conjunctiva with papillary hypertrophy showing follicles after the third week, many showing secondary infection with the staphylococcus. Scarring and pannus may occur later. Rhinitis may occur.

Treatment was by tetracycline locally or systemically. It is suggested that the term inclusion conjunctivitis or blennorrhoea be abandoned and the neo-natal disease called ophthalmia neonatorum due to TRIC agent.

M. A. Bedford


28 mothers of babies with ophthalmia neonatorum due to TRIC were examined; 24 had cervical "follicles" and 20 had a purulent cervical discharge. TRIC agent was grown from eight. Ten patients had asymptomatic genital infections. Nineteen of the fathers of the same families were investigated: seventeen had non-specific urethritis, seven of whom showed TRIC agents. Six of the fourteen baby girls had a vulvo-vaginitis, but TRIC agent could not be grown. It is clear that parents of affected babies should be investigated for TRIC and other sexually transmitted diseases.

Genital tests in 39 cases of trachoma, TPK, and inclusion conjunctivitis gave isolates in eleven.

It seems that the infection in this series was spread by sexual means. Bedsonia organisms have been isolated from "non-specific" urethritis and one case of Reiter's disease.

M. A. Bedford


The Bedsonia resemble larger viruses, but biologically resemble bacteria and rickettsiae. Diagnosis is made either by demonstration of Halberstaedt-Prowazek inclusions or isolation of the agents from eggs. The former are basophilic structures found in the cytoplasm of epithelial cells and composed of elementary bodies. Mature
inclusions may be scanty. Smears often contain polymorphs and mononuclears, phagocytes, and plasma cells. In conjunctival cells iodine may facilitate the demonstration of the inclusions.

Culture is carried out by inoculation of the yolk sac of fertile eggs, which is removed later and smears are made for elementary bodies. When isolated, it must be shown to possess *Bedsonia* group antigen. The problem of naming isolates from different sites is described. In one case *Bedsonia* was isolated from the synovial fluid from a joint in a case of Reiter's disease. 

**M. A. Bedford**


Seven personal cases of conjunctival candidiasis, as well as clinical examinations and experiments on rabbits, are presented. Candidiasis did not differ from conjunctival geotrichosis, occurred in Candida carriers unilaterally and bilaterally, and lasted for from several days to some years. Pathological changes—presenting themselves sometimes in a couple of days or even at several years' interval—formed various syndromes with angina, periodontosis candidosa and mycotic joint rheumatism as main features. The author found blastomyces of *Candida albicans* in urine, faeces, tooth-sockets, on the conjunctiva, and in the tonsils. He considers the candidiasis to be as pathogenic as bacteria and believes it is an aetiological factor—in co-operation with streptococcus—in focal infections.

**W. H. Melanowski**


**REITER'S DISEASE AND ALLIED CONDITIONS**


"Because of the clinical and histological similarity between keratosis blennorrhagica and the purplish or the purpuric form of psoriasis, oral folic acid antagonists were used in the treatment of Reiter's syndrome." The authors chose six patients, five males and one female; the woman and one man were Latin Americans, one man was white, one was American Indian, and two were Negroes. In all cases the Reiter's disease was severe, giving rise to prolonged widespread arthritis and generalized keratoderma. There had been failure of treatment with penicillin, salicylates, and corticosteroids, and in four cases treatment with anti-malarials had been followed by either no improvement or actual worsening of the skin and joint symptoms. The first two patients were treated with aminopterin (two courses of 0·5 mg. daily for 6 days in the first case and four courses in the second case) and the remaining patients were treated with methotrexate (the dose varying from four 6-day courses of 2·5 mg. daily to three 6-day courses of 2·5 mg. and 5 mg. on alternate days). Treatment with folic acid antagonists controlled the skin lesions completely in four instances and partially in two. In two cases recovery from arthritis followed treatment, but there was either partial or no response in the remaining four. The patients whose arthritis persisted were then given indomethacin with good effect. The authors reported no complications resulting from the use of folic acid antagonists.

[In the management of severe and prolonged Reiter's disease, the successful control of arthritis is of far greater importance than the relief of symptoms due to keratoderma, and this paper does not give convincing evidence that the use of drugs of this nature will produce such striking improvement in arthritis that it compensates for the undoubted risks of this therapy.]

**J. A. H. Hancock**

Isolation of *Bedsonia* from Joints of Patients with Reiter's Syndrome. Schachter, J., Barnes, M. G., Jones, J. P., jr, Engleman, E. P., and Meyer, K. F. (1966). *Proc. Soc. exp. Biol. (N.Y.)*, 122, 283. 7 refs. Sixteen patients with Reiter's syndrome, all with arthritis and/or conjunctivitis, were investigated for the presence of *Bedsonia* (psittacosis-lymphogranuloma-venerereum-trachoma group of organisms). Fifteen patients with rheumatoid arthritis or osteo-arthritis served as controls. Urethral and conjunctival scrapings were obtained from seven patients with Reiter's syndrome and biopsy specimens of synovial membrane from four patients and all fifteen controls. The material was inoculated into the yolk sacs of 7-day-old embryonated hen eggs and incubated at 34° C. for 20 days, the presence of *Bedsonia* being shown by demonstration of the characteristic elementary bodies, maintenance by serial passage, and demonstration of group antigen in the infected yolk sacs. In addition, sera from all patients and
controls were examined for complement-fixation with psittacosis antigen. 

Bedsoniae were isolated from the synovial specimens from all four patients with Reiter’s syndrome and from none of the control specimens. Bedsoniae were also found in the urethral and conjunctival secretions of a fifth patient with Reiter’s syndrome. Sera from five of the sixteen patients (including three of those from whom Bedsoniae had been isolated) and from none of the controls gave significant complement-fixation titres against psittacosis antigen. Microbiological tests showed that the isolates were distinct from trachoma and inclusion conjunctivitis agents. Exclusion of lymphogranuloma venereum agent was less certain. The possibility that Bedsoniae may play a role in the arthritis of Reiter’s syndrome is being further investigated.

G. W. Csonka


This paper from the Bureau of Medicine and Surgery of the US Navy Department reports a sequence of events which points strongly towards an aetiological relationship between Reiter’s syndrome and bacillary dysentery. In June, 1962, the crew of a naval vessel visiting a foreign port celebrated an anniversary with a picnic. Unfortunately, two of the cooks preparing the food had mild dysentery (which they had concealed for fear of losing shore leave), which resulted in 602 of 1,276 men being infected with an organism of the genus Shigella. The patients were treated with sulphonamides, and some required chlorpromazine, antispasmodics, and intra-venous fluids.

Within a month of this outbreak nine of the crew had Reiter’s disease, all being convalescent from dysentery, though none was still harbouring Shigella. The US Navy expects on average to see 36 cases of Reiter’s disease each year in a population of over 900,000 men. The occurrence of nine cases in 16 days from a crew of 1,276 implies a common factor. The author suggests that the circumstances described support the opinion of Paronen (Acta med. scand., 1948, 131, Suppl. 212) and others that bacillary dysentery is a cause of, or predisposes to, Reiter’s syndrome.


ABSTRACTS

CHEMOTHERAPY


A 13-year-old boy developed optic neuritis after 4 months of treatment with chloramphenicol. When the chloramphenicol was discontinued and hydrocortisone was given systemically there was complete recovery of vision.

C. McCulloch

PUBLIC HEALTH AND SOCIAL ASPECTS


An account is given of how it proved possible to limit the epidemic of syphilis in South Greenland in 1965 to thirteen cases. The measures undertaken consisted of quarantine regulations, serological investigations on population groups, and intense activity to trace contacts. Tracing of contacts proved to be a particularly valuable feature of the investigation, twelve of the cases being traced in this manner. The epidemic is considered to have been arrested as repetition of the serological follow-up investigation in young people and adults 2 months after the first investigation and follow-up examination of 625 particularly sexually active individuals 4 months later did not reveal any further cases.

No cases caused by extragenital infection nor by homosexual relations were revealed. The sexual activity and the frequent treatments with penicillin for gonorrhoea are emphasized to illustrate the difficulties encountered in elucidating the pathways of infection.

Finally, it is mentioned that the epidemic of syphilis is the direct reason for the institution of the intensive campaign against venereal infections in Greenland.

[Translation of author’s summary]


MISCELLANEOUS


In a previous investigation (Bull. Soc. Path. Exot., 1963, 56, 474), it was found that sera from 72 of 111 cynocephalus monkeys from Guinea gave positive reactions in the treponemal immobilization (TPI) and fluorescent treponemal antibody (FTA) tests. Sera from thirty animals from Kenya gave negative results.

A further series of 106 sera from cynocephalus monkeys from Kenya were found to give negative FTA tests as did 1,168 out of 1,236 sera of these monkeys which had been caught in Cambodia. 52 sera from the latter area gave low-titre FTA tests (150-450) but the TPI tests on these were negative. Absorption of a sample of these sera with a sonicate of Reiter treponemes removed the FTA reactivity, suggesting that the positive reactions seen before absorption were due to group antitreponemal antibody.

24 cynocephalus monkeys recently imported from France from Kenya were studied. Clinically the animals appeared healthy and showed no scars of the skin or genitalia; several had palpable axillary or inguinal glands but this was not considered abnormal. 22 of the 24 had frankly positive TPI and FTA tests and the latter tests remained positive after absorption to remove group antibody. Quantitative TPI titres ranged from 80 to 2,000 and absorbed FTA titres from 450 to 8,000. Autopsies were performed on eighteen animals, but no macroscopic abnormalities were seen. Smears were systematically prepared from the axillary, inguinal, popliteal, para-aortic, submaxillary, and mesenteric lymphnodes, and indirect immuno-fluorescence tests to detect treponemes were performed. The smears were first treated with human or rabbit syphilitic serum and then with the appropriate anti-globulin conjugate followed by staining with 1/5,000 Evans blue in buffered saline to quench background fluorescence. By this technique, treponemes morphologically identical with *T. pallidum* or *T. pertenue* were demonstrated in preparations from popliteal nodes of seven of the animals; infected nodes usually contained many treponemes which were easily seen; no treponemes were found in nodes from other sites. Eighteen golden hamsters were inoculated with homogenates of infected nodes and also with material from nodes in which treponemes had not been found; the outcome of these transfer experiments is not yet known.

[This demonstration of a geographically-localized, naturally-occurring treponemal infection of monkeys is of importance; further studies on the relationship between the treponeme concerned and those responsible for human disease will be awaited with interest.]

A. E. Wilkinson


Using an original experimental technique in mice, a crossed immunity was proved between trachoma, inclusion conjunctivitis, and lymphogranuloma venereum, but not between these diseases and psittacosis.

S. Vallon


Description of a case of unilateral Argyll Robertson pupil which followed an attack of herpes zoster. Some of the literature is reviewed.

N. Galloway


