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, (General, Pathology, Therapy); Gonorrhoea (General, Pathology, Therapy); Chemotherapy; Other Venereal Disease Conditions; Public Health; Miscellaneous. After each subsection of abstracts follows a list of articles that have been noted but not abstracted. All subsections will not necessarily be represented in each issue.

SYPHILIS (General)


A statistical analysis was carried out with the aim of determining the influence of various factors, considered singly, upon the course of syphilitic aortic incompetence in 1,020 patients, 711 of whom had first been seen at the Johns Hopkins Hospital, Baltimore, between 1925 and 1950, and 309 at the New York Hospital between 1930 and 1950. About 75 per cent. of the total were traced up to the time of the investigation. Owing to the lack of any controls, no attempt was made to evaluate specific therapy.

On the whole, over one-third of the total survived 10 years after being diagnosed. Survival was better among white men and negro women than among negro men, but this may have been due to sociological rather than to purely racial factors. Subjects engaged in heavy work at the time of diagnosis apparently survived better than those employed on light work or unemployed when diagnosed, presumably because the latter group included the more severely incapacitated. The survival rate among patients of all ages was considerably less than that of a similar group of the general population. In the first 2 years after diagnosis, younger patients (under 40) had a rather higher death rate than older patients, but thereafter the younger men did better than their elders. The presence of cardiac symptoms, of angina, and particularly of cardiac failure at the time of diagnosis affected the subsequent course unfavourably. Of the 632 patients who had died, the cause was considered to be cardiovascular disease in 75 per cent. Of the 219 on whom necropsy was performed, 45 were found to have non-syphilitic heart disease.

Kahn, and V.D.R.L. tests was made at St. Mary’s Hospital Medical School, London, on 217 syphilitic sera and on 315 non-syphilitic sera, including serum from cases of leprosy, bejel, and yaws. In cases of untreated primary syphilis the TPI test compared poorly with the other tests, but in the later stages the test was highly efficient and proved more sensitive than the standard tests on serum from cases of latent syphilis, cardiovascular syphilis, and neurosyphilis. The TPI test was also sensitive and specific in the examination of the cerebrospinal fluid in syphilitic cases. The test result, however, remains positive in syphilis even after treatment has been given (unless this was commenced in the primary stage), and is therefore of little value in the assessment of cure. In a small number of specimens of serum from cases of yaws and of bejel the results were similar to those in syphilis.

Specificity for syphilis, as shown by results with 289 specimens of non-syphilitic serum, was greater (99.3 per cent.) with the TPI test. Among these sera were 48 specimens which had given false positive reactions to the standard tests, namely, from 24 cases of leprosy, five of pregnancy, one case each of disseminated lupus erythematosus, malignant lymphoma, vaccinia, subacute bacterial endocarditis, endomyceliosis, haemolytic anaemia, pityriasis rosea, and malaria, and eleven from patients who gave no history of recent illness. The only positive reactions to the TPI test were with sera from two cases of leprosy. It is concluded that the greatest value of the test appears to be in the verification of suspected false positive reactions obtained with the standard tests.

V. E. Lloyd


A comparison of the results of the treponemal immobilization (TPI) test with those of the Wassermann, Kahn, and V.D.R.L. tests was made at St. Mary’s Hospital Medical School, London, on 217 syphilitic sera and on 315 non-syphilitic sera, including serum from cases of leprosy, bejel, and yaws. In cases of untreated primary syphilis the TPI test compared poorly with the other tests, but in the later stages the test was highly efficient and proved more sensitive than the standard tests on serum from cases of latent syphilis, cardiovascular syphilis, and neurosyphilis. The TPI test was also sensitive and specific in the examination of the cerebrospinal fluid in syphilitic cases. The test result, however, remains positive in syphilis even after treatment has been given (unless this was commenced in the primary stage), and is therefore of little value in the assessment of cure. In a small number of specimens of serum from cases of yaws and of bejel the results were similar to those in syphilis.

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V. E. Lloyd


The intrathecal administration of penicillin is known to produce meningeal irritation accompanied by an increase in the cell count and protein content of the cerebro-spinal fluid. The authors, working at the Neurological Clinic, Madrid University, have noted that in some cases the Wassermann reaction of a previously normal spinal fluid becomes positive after intrathecal injection of penicillin, and in this paper discuss the
possibility of using this procedure to confirm the diagnosis in doubtful cases of neurosyphilis. They claim that in two cases of tabes dorsalis and one of paresis the method was successful. It is noteworthy that in the case of paresis the Wassermann reaction of the blood was persistently negative, while in the other two patients, one an untreated case of late syphilis and the other a well-treated paretic, the Wassermann reaction of the cerebro-spinal fluid remained negative after intrathecal penicillin, though in each case there was an appreciable meningeal reaction. Multiple intrathecal injections each of 5,000 to 30,000 units of penicillin were made in all three cases.

(The procedure described recalls the now outmoded and never very reliable practice of giving provocative injections of neoarsphenamine to doubtful Wassermann reactors.)

G. L. M. McElligott

Important Details concerning the Argyll Robertson Pupil.


The author reviews the features of the Argyll Robertson pupil—namely, irregularity, miosis, loss of reaction to light, preservation of reaction on convergence, poor response to mydriatics, delayed response to eserine, and atrophy of the iris—and points out that the loss of the light reflex develops through definite stages which are the same as those of physiological fatigue in normal eyes. In incomplete Argyll Robertson pupil, however, impairment of the pupillary light reflex occurs in one or more segments rather than in the entire iris. The irregularity of the outline is due to structural changes rather than to a disturbance of innervation, for it persists after death.

Dealing with the frequency of Argyll Robertson pupils, the author recalls that in a study of over 400 cases of neurosyphilis Merritt and Moore (Arch. Neurol. Psychiat. (Chicago), 1933, 30, 357) found a complete Argyll Robertson pupil in only 45 per cent. Theories about the location of the lesion responsible for the phenomenon are briefly discussed. A lesion of the periaqueductal grey matter would not explain the miosis, irregularity, and diminished responsiveness to drugs, and the author therefore favours the theory of Langworthy and Ortega (Medicine (Baltimore), 1943, 22, 287) that the lesion is in the nerve fibres in or near the iris; the preservation of the reaction on convergence is attributed to the fact that this synkinetic movement is normally much stronger than the light reflex. In advanced cases the reaction on convergence is lost, as well as the light reflex.

J. Foley


The authors give details of a case, and describe how the unilateral sign may help to locate the site of the lesion. To produce the miosis, the sympathetic must be involved as well as the parasympathetic; the most likely site is the ciliary ganglion and the sympathetic plexus around the adjoining ophthalmic artery.

R. W. Stephenson


A short review of the subject in which the author emphasizes the differential diagnosis with Argyll Robertson pupil and with internal ophthalmoplegia.

R. de Toledo


Smirnov points out that in the early stage the central nervous system suffers through the meninges and blood vessels (mesoderm) and in the later stage through degeneration of the parenchyma (ectoderm). In tabes the Argyll Robertson reaction is permanent.

N. Pines


Incidence of a Positive Serological Reaction (Kahn’s Test) amongst Healthy Unselected Adult Population of the Punjab (Pakistan) and its Significance. KHAN, ALI MUHAMMAD, and SAAD-UD-DIN AHMED, BASEER. Medicus (Karachi), 6, 157. 10 refs.


Deafness and Syphilis. (Surdités et syphilis.) PORTMANN, M., and GRIMALDI, P. (1953). *Rev. Laryng. (Bordeaux)*, 74, 457, 3 figs; and 540, 6 figs, bibl.


**SYPHILIS** (Pathology)

Observations on the Optimal Zone Reaction and Sero-resistance. CANEFAX, G. R. (1953). *Amer. J. Syph.*, 37, 344. 3 figs, 1 ref.

The optimal-zone procedure was performed in 300 sero-resistant cases of syphilis at the U.S. Public Health Services Treatment Center for Venereal Diseases at Hot Springs, Arkansas. In this test the flocculation obtained with serum and antigen in different proportions is recorded in sequence of increasing serum:antigen ratio, producing a so-called pattern. Kahn has suggested that certain post-treatment patterns may have possible prognostic significance—for example, in the early determination of ultimate sero-resistance following presumably adequate therapy.

When the results of the optimal-zone procedure were compared with the reagin titre in this series it became increasingly evident that the optimal-zone patterns were predominantly dependent upon reagin concentration. It is considered, therefore, that the optimal-zone procedure does not produce information concerning sero-resistance that is not already obtainable with the more easily performed standard serological tests for syphilis provided these are performed at regular intervals.

R. R. Willcox


The technique of this flocculation test, introduced by von Boros in 1949, is described. Having employed the test in some 25,000 cases examined at the Institute of Hygiene, Saarbrucken, for the detection of syphilis, the authors found that it compared very favourably with the standard Kahn, Meinicke, and Wassermann tests; they conclude that its sensitivity, simplicity, and rapidity—the whole reaction takes only 50 to 60 minutes—give it great advantages over these other methods. The von Boros test can also be used for the examination of cerebro-spinal fluid.

James Marshall

**ABSTRACTS**


In investigations carried out in the Venereal Disease Experimental Laboratory of the U.S. Public Health Service at the University of North Carolina the authors have confirmed Tani’s observation that treponemes killed with antiformin do not undergo spontaneous agglutination and are agglutinated by syphilitic sera (*Jap. J. exper. Med.*, 1940, 18, 11), and have shown that this agglutination is enhanced by the conglutinin present in beef serum. Suspensions were also made of treponemes killed by exposure to a temperature of 56° C. for 40 minutes, or to oxophenarsine (1 in 4,000), 0·2 per cent. phenol, or to 0·1 per cent. formalin. No spontaneous agglutination was seen in suspensions prepared by the first two methods, but it occurred to some extent in phenol-killed suspensions, while the formalin-killed suspensions failed to agglutinate altogether. The treponemes were obtained by extraction with saline from the testes of rabbits infected with the Nichols strain of *Treponema pallidum* 7, 9, 11, or 13 days previously.

When fresh beef serum was used as a source of complement in the treponemal immobilization (TPI) test, complete disappearance rather than immobilization of treponemes was found to occur, and tests for residual complement showed conglutination to be present. No immobilizing antibody could be demonstrated when heated beef serum was used. Quantitative tests on a syphilitic serum using beef and guinea-pig serum as sources of complement showed that the “disappearance titre” with the former was similar to the immobilization titre with the latter. Disappearance also occurred when the living suspension was heated to 56° C. for 40 minutes and the tests incubated either aerobically or anaerobically. It was later found when washed killed suspensions were used that disappearance of treponemes always occurred with fresh beef serum, while agglutination took place when heated beef serum was used. When the serum was suitably diluted these effects were overcome, while sufficient conglutinin activity remained to enhance the agglutination of the treponemes by syphilitic sera. For test purposes 0·1 ml. treponeme suspension (heat-killed), 0·1 ml. fresh beef serum diluted 1 in 7, and 0·1 ml. of the inactivated serum under test were mixed and shaken at 37° C. for 2 hours and the degree of agglutination read under the high power of the microscope. Using this technique the test showed good reproducibility. The titre of a pooled positive serum examined on 24 occasions with six different suspensions varied between 1 in 40 and 1 in 160.

Serum from 154 presumably non-syphilitic persons were examined: the TPI test was negative in all cases, the agglutination test was negative in 150, positive in one, and doubtful in three. With twelve sera from patients with primary syphilis the standard serum tests gave eight positive and three negative results (one serum was not tested), the TPI test gave five positive and six negative results (one serum showing non-specific immobilization), and the agglutination test gave ten positive and two negative results. All three tests gave positive results with
66 sera from patients with secondary syphilis and with 33 sera from patients with latent syphilis. Quantitative tests showed no correlation between the titres given by the three tests, although in general the agglutination titres were higher than the immobilization titres.

A. E. Wilkinson


At the University of Michigan, Ann Arbor, sera from 48 patients with no clinical or other evidence of syphilis, but whose serum gave positive reactions (believed to be biological false positive reactions) to the standard Kahn test were subjected to testing by the Kahn verification test and the treponemal immobilization (TPI) test. Of the 48 patients, twenty gave positive results with the TPI test, and in fourteen of these (70 per cent.) the result agreed with the verification test. In the other 28 the result was negative with the TPI test and there was agreement with the Kahn verification test in only eighteen cases (64.3 per cent.). From these findings it is concluded that too much reliance should not be placed on the Kahn verification test.

R. R. Wilcox


Before the development of the treponemal immobilization (TPI) test the euglobulin-inhibition or Neurath test provided one of the few possible laboratory controls for standard serum tests for syphilis. According to Neurath, biological false positive reactions may be differentiated from true syphilitic reactions by means of a heat-stable serum component or "inhibitor". This substance inhibits the serological activity of globulin fractions of biological false positive sera, but does not appreciably affect the same fractions of syphilitic sera. The results of the Neurath test and the TPI test were therefore compared with each other and with the clinical diagnosis in a series of 96 patients at the New York University-Bellevue Medical Center, New York.

Complete agreement between the two tests was noted in 65 cases (67.7 per cent.) and disagreement in eleven, while in twenty cases the Neurath test was inconclusive or showed specimen-to-specimen variation, whereas the TPI test was conclusive and reproducible. The TPI test was in agreement with the clinical diagnosis in 95.7 per cent. (89 out of 93 cases) but the Neurath test in only 64.5 per cent. (sixty cases). In seven cases of pityriasis rosea the result of the TPI test was negative in all cases, whereas the Neurath test result was negative in three and of the biological type in four. The TPI test was negative in six patients with lupus erythematosus, while the Neurath test was negative in two, of biological type in two, and gave a variable result in the two others.

R. R. Wilcox


Among the methods devised to aid in differentiating between positive reactions to the serological tests for syphilis which are actually due to that disease and those produced by other conditions is the Neurath procedure, in which a heat-stable "inhibitor" fraction of serum is used. It is claimed that the false positive flocculation reaction is inhibited by the addition of the Neurath serum fraction, whereas the positive reaction due to syphilis remains unchanged.

At the Venereal Disease Research Laboratory of the U.S. Public Health Service, the present authors used the Neurath technique in a series of tests performed with three different antigens—two antigens of the cardiolipin-lecithin type as used for the V.D.R.L. and Rein-Bossak flocculation tests and a lipoidal antigen as used for the Mazzini flocculation test. At the same time standard Rein-Bossak, Mazzini, and V.D.R.L. slide tests were performed on the same sera without reference to the results of the Neurath tests. Specimens of blood for testing were obtained from sources which included the children of an orphanage in Guatemala City, in whom the incidence of congenital or acquired syphilis was low and malaria, a fruitful source of false positive reactions, was not present, and school-children in San José, Guatemala, where the incidence of malarial infection is very high. Blood from non-syphilitic and syphilitic adults was also included.

The results obtained with the Neurath procedure were shown to be dependent to a great extent on the type of antigen employed. In 108 specimens of blood from 100 syphilitic patients the proportion of negative reactions was considerably fewer with the Mazzini antigen than with the other two, but many of the positive reactions with the Mazzini antigen were of the "biologic" type, and only 39 (36 per cent.) of the syphilitic type, compared with 60 (56 per cent.) with the V.D.R.L. antigen and 77 (71 per cent.) with the Rein-Bossak antigen. There was little difficulty in detecting false positive reactions to tests by the routine method by:

1. the absence of history or clinical signs of syphilis;
2. the finding of discrepancy between the results of the various tests which were used, and even between results of the same test when repeated on the same individual; and
3. the absence in these cases of a progressive and sustained rise in serological titre or of agreement between the results of all the tests during the period of observation.

It was therefore concluded that the employment of the Neurath procedure added no significant information to that given by the standard serological tests under the circumstances in which this study was conducted.

A. J. King


Diagnosis of Syphilis in the Clinical Laboratory with the Aid of a Rapid Test. (Die Syphilisfeststellung im klinischen Laboratorium mit Hilfe eines Lues-Schnell-tests.) BECK, W. (1953). Medizinische, 47, 1516. 27 refs.


SYPHILIS (Therapy)


A follow-up survey was carried out at the University of Maryland School of Medicine on cases of early syphilis treated by the authors 2 to 4 years previously with chloramphenicol, aureomycin, or oxytetracycline ("terramycin").

Of the fourteen patients treated with chloramphenicol, one defaulted from observation, two had serological relapses, and one a mucocutaneous relapse; in two the serological test results were doubtful, in three they remained positive with titres of 1, 4, and 8 units respectively, and in five (30 per cent.) they remained negative and the spinal-fluid examination was also negative.

In the aureomycin-treated group six of the ten original patients treated by the oral route were examined; of these, five were sero-negative and one was sero-positive with a titre of two units, but all were negative on spinal-fluid examination. Of seven patients (out of ten) treated with aureomycin intravenously, one who had earlier been sero-negative had now become sero-positive, one still showed a positive titre of 4 units, and five (71 per cent.) had negative blood and spinal-fluid findings.

Of the group of five patients given oxytetracycline, one had died of pneumonia, one had a serological relapse, and in three (75 per cent.) serological tests and spinal-fluid examinations were negative. Although the series is admittedly small, the authors conclude that these three drugs are of value as antisyphilitic agents when penicillin is contraindicated, but prolonged surveillance is called for in view of the possibility of serological or clinical relapse.

Douglas J. Campbell


The treatment of syphilis with penicillin has not been entirely satisfactory, an appreciable incidence of penicillin dermatitis and penicillin shock having been reported. For this reason the authors, working at Harlem Hospital, New York, have treated ten cases of early acquired syphilis with oxytetracycline ("terramycin") given orally. Irrespective of body weight, 2 g. a day (500 mg. 6-hourly) was given for 14 days, and the patients were observed for 12 weeks or longer.
Local and general Herxheimer reactions were encountered, one patient developed a mild dermatitis and another herpes simplex. *Treponema pallidum* was destroyed in surface lesions in from 44 to 96 hours; in most cases the cutaneous lesions responded favourably, but a few were slow in resolving. The effect on serological reactions was also favourable, though only five patients completed adequate post-treatment surveillance: of these, two were serologically negative within 12 weeks, but a third not until 7½ months. In one case resistance to oxytetracycline developed, with lack of proper healing response in the cutaneous lesions, and prolonged treatment was required to destroy the treponemes in the surface lesions.

The authors confirm the experience of other workers that oxytetracycline has treponemocidal properties and could be used when penicillin is contraindicated, but the dosage should exceed 2 g. per day and be continued for at least 2 weeks. They recommend that bismuth therapy should be given conjointly.

**Douglas J. Campbell**


The authors report, from the University of Pennsylvania, the results of the ambulatory treatment of cardiovascular syphilis with procaine penicillin. Of the nineteen patients (six with simple aortitis, ten with aortic insufficiency without aneurysm, and three with aortic insufficiency and aneurysm), four showed symptoms of congestive heart failure. The dosage was either 9 mega units of procaine penicillin in daily doses of 600,000 units or 6 mega units of procaine penicillin with 2 per cent. aluminium monostearate, the patients attending as out-patients.

All nineteen patients tolerated the course without untoward immediate reactions, except that one who was also suffering from neurosyphilis had fever after the first injection but was able to complete the course. In the authors’ experience patients with involvement of the central nervous system often show reactions of a mild or even serious degree, so that the preliminary examination should also include examination of the spinal fluid. Surveillance was carried out at 3- and 6-monthly intervals. During the period of surveillance two patients died, but there was no evidence that treatment was in any way responsible for either death. From these results the authors conclude that penicillin may be safely administered to ambulatory patients. In no case did a Jarisch-Herxheimer reaction to penicillin develop.

**Douglas J. Campbell**


The author draws attention to five cases of arrested tabes dorsalis with lightning pains treated at Johns Hopkins Hospital, Baltimore, in which cortisone or A.C.T.H. diminished the severity of the pains. In the one case which is described in full, cortisone was given for a period of over 8 months, and during this period and for about 4 months afterwards the duration and severity of his lightning pains were reduced by about 75 per cent. Nine months after cessation of the treatment a Charcot’s arthropathy of a lumbar intervertebral joint appeared. In two of the other cases treated with the hormones there were gastric crises, which in one case improved; but as such crises are episodic to an even greater degree than lightning pains, the value of this method of treatment remains unproved.

**J. Foley**


The absorption of “spirotrypan”, a new antisyphilitic drug of the arsenamine group, can be determined quantitatively by estimation of its arsenic component. The assays on organs, urine, and faeces here described were performed by wet ashing by the method of Hubbard, and the arsenic content estimated by the method of Gutzeit-Lockemann.

Experiments in the rat showed that the absorption of spirotrypan following intramuscular injection rose to more than 80 per cent. during the first 24 hours, but about 5 per cent. of the conjugated material was still to be found at the site of injection 10 days later. Local compatibility was good. Multiple injections, also made intramuscularly, in the dog produced no noticeable histo-pathological changes. The blood level of the drug in the rat reached its maximum 3 hours after an intramuscular injection and fell in a fluctuating manner for up to 10 hours, after which a fairly constant level was established; 7 days later the level was still definitely above the level in control animals. Studies of the persistence of spirotrypan in the organs of rabbits made 17 days after the last of 4 injections showed that the greatest amounts were stored in the skeletal muscles, skin, and liver; in the guinea-pig the highest arsenic concentrations were found in the kidneys, skeletal muscles, spleen, and liver. In the guinea-pig’s liver the arsenic was stored predominantly in the Kupffer cells, while in the rabbit it was found mostly in the liver parenchymal cells.

Excretion of the drug in the rabbit was similar in amount and rate after both intravenous and intramuscular injection. In 10 days half of the administered arsenic had been eliminated, two-thirds of it through the kidneys and one-third by way of the intestine, in the latter case largely in the bile. Following intravenous injection the concentration of arsenic in the urine on the first day was higher than after intramuscular administration.

**Norval Taylor**
ABSTRACTS


A trial of chloramphenicol in the treatment of eight cases of neurosyphilis, recently made at the Coolsgelg Hospital, Rotterdam, indicated that rapid and considerable clinical improvement could be obtained, although reversal of serological test results was incomplete and impermanent. A safe dose was 1 g. four times daily (70 mg./kg. body weight) given for about 16 days. The cerebro-spinal fluid content of chloramphenicol was usually found to be 25 to 50 per cent. of that of the blood. The passage of the drug through the blood brain barrier was not increased by the presence of meningeal inflammation. It is pointed out that the period of subsequent observation was not long enough, and the number of cases was too small, to permit of definite conclusions being drawn at present.

R. Crawford


A new preparation, “peniluin”, which contains 250,000 units of procaine penicillin combined with 50 mg. bismuth in each ml., has been used at the Municipal Skin Clinic, Mannheim, in the treatment of 89 cases of early and late syphilis. Treponemes disappeared on the average 5-6 hours after the first injection, and the rate of healing and the results of serological tests were considered satisfactory. The course consisted of 2 ml. peniluin given three times weekly for 4 to 6 weeks. Side-effects were few, mainly painless local swelling at the site of injection. It is suggested that the course could be repeated two or three times at intervals of three to six months.

[There is little evidence in this article that the combination of a drug so little effective as bismuth with the most effective antisyphilitic drug, penicillin, is in fact an advance, and from most points of view the prolongation of treatment for months or years instead of days or weeks must be regarded as a retrograde step.]

G. W. Csonka


The authors treated 37 patients with syphilitic optic atrophy with penicillin alone and combined with tertian malaria. Their results are in accord with those of Moore who concluded that patients with visual acuity 6/20 and better tend to achieve arrest of the optic atrophy and in those with worse vision the atrophy tends to progress. In this small series all patients can be considered as a fundamentally penicillin-treated group. The addition of therapeutic malaria did not seem to add enough to the effect of the penicillin to warrant its use.

Irwin Gaynon


GONORRHOEA (General)


Case of Gonococcal Arthritis; Differential Diagnosis from Reiter’s Syndrome. (Un caso de artritis gono-coccica; diagnostico differencial con el sindrome de Reiter.) FINKELSTEIN, M. (1952). Sem. méd., B. Aires, 101, 455.
TREATMENT OF GONORRHOEA (Therapy)


For the treatment of early gonorrhoea penicillin has certain disadvantages and dangers which are accentuated in the absence of adequate laboratory facilities. Since such treatment is now undertaken largely by the general practitioner, there is a need for an equally effective drug which is less liable to suppress the early signs of a concomitant syphilitic infection and to induce drug-resistance in the organism and hypersensitivity in the patient.

Chloramphenicol has been reported to possess these properties to some degree, and has the added advantage or being effective when given by mouth. The author therefore undertook preliminary trials with the German equivalent, "leukomycin", in thirty female patients with untreated urethral, cervical, or rectal gonorrhoea at the Skin Clinic of the University of Mainz. Leukomycin was given in doses of 0.25 g. at intervals of 3 to 4 hours, 2, 3, and 4 doses being given in different cases selected at random. Smears of the discharge were examined daily for the first 10 days, and the patients subsequently remained under surveillance at the clinic for an unspecified period. In the one case in which the drug caused a severe gastro-intestinal disturbance the smears remained positive, and in another case gonococci returned after the patient's discharge from hospital, probably as a result of reinfection. The remaining 28 patients were cured. A further trial was then carried out in which forty female patients were given 2 doses of 0.25 g. at an interval of one hour and smears were examined at frequent intervals after the second dose. In every case gonococci had disappeared within 3 to 4 hours, not even degenerate forms being visible.

The author concludes that leukomycin by mouth is effective against gonorrhoea in the female in lower dosage than has hitherto been recommended for chloramphenicol, and considers that if this is confirmed in the male there is a good case for its general use in place of penicillin.

*Donald Crowther*


Eleven strains of freshly isolated *Neisseria gonorrhoeae* were tested *in vitro* against erythromycin; four were sensitive to less than 0.1, 4 to 0.2, 1 to 0.3, and 2 to 0.4 μg. per ml. Ninety-six per cent. of patients given 2.0 g. of erythromycin orally in either single or divided doses were cured. There was a decreasing percentage of cures with lesser amounts of the antibiotic (50 per cent. with 1.0 g., 23.3 per cent. with 0.5 g., and 25 per cent. with 0.3 g.). —Authors' summary.


In view of recent reports that the antibacterial activity of aureomycin *in vitro* may be increased by combination with other agents, notably sulfonamides, a clinical trial was carried out at Harlem Hospital, New York, in which tablets containing 125 mg. of aureomycin and 167 mg. each of sulfadiazine, sulphonamide (sulphadimidine), and sulphanemazine were used in the treatment of seventy cases of acute anterior gonococcal urethritis in the male. Earlier experience had shown that the minimum effective total oral dose of aureomycin alone was approximately 1.0 g., which gave a cure rate of 94.3 per cent. in 122 cases, whereas in a smaller number of cases a dose of 0.5 g. was ineffective. In the present series of cases four tablets were given to each patient—a, immediately, one 6 hours later, and one 12 hours later. This amounted to a total of 0.5 g. of aureomycin and 0.668 g. of each of the three sulfonamides. The cure rate was 94.3 per cent., which was identical with that obtained with double the dose of aureomycin alone.

The authors conclude that the sulfonamides potentiate the activity of aureomycin against the gonococcus *in vivo*, and they claim for this method of treatment that it reduces the incidence of toxic effects and is more economical than the use of a larger dose of aureomycin alone. There are other possible advantages, namely:

1. that with the lower dose of the antibiotic the symptoms and signs of other venereal diseases, especially syphilis, are less likely to be masked;
2. that the combination of drugs may be effective in cases resistant to one drug; and
3. that the range of antibacterial activity of this preparation might be expected to be greater than that of aureomycin alone. On the other hand there is the danger that the use of small amounts of aureomycin might encourage the development of resistant bacteria in certain types of infection, although this is unlikely with acute gonorrhoea.

*A. J. King*


CHEMOTHERAPY


A penicillin preparation in oil (Ophthopen) with bacteriological controls showed good results and compared well with other prophylactic agents and other penicillin preparations.

*W. Leydhecker*
ABSTRACTS


When the use of 1 per cent. AgNO₃ or penicillin in the prophylaxis of blennorrhoea of the newborn is compared, the author concludes that prophylaxis should be modified or discontinued in view of the rise in the standard of living, health, and hygiene of the entire population. Under present day conditions, however, no change can be expected apart from improvement in the technique to prevent noxious side-effects of solutions of AgNO₃, when used repeatedly or unduly concentrated. In institutions a great number of controls is necessary before a final decision on the best method of prophylaxis will be reached.

M. Klima


An account is given of the part played by antibiotics in the treatment of syphilis, gonorrhoea, non-specific urethritis, chancroid, and lymphogranuloma venereum. Penicillin is the antibiotic of choice in the treatment of syphilis and gonorrhoea, and also for ophthalmia neonatorum of gonorrhoeal origin. Sulphonamides, aureomycin, and chloramphenicol are effective in non-specific urethritis. Sulphonamides and streptomycin are useful in treating chancroid. Aureomycin, chloramphenicol, or terramycin should be used for lymphogranuloma venereum.

A brief summary of the toxic effects of the antibiotics mentioned is given.

D. Ainslie


Magnamycin, an antibiotic obtained from Streptomyces halstedii, possesses effective inhibitory activity against rickettsiae and the largerviruses. It is reported to be active principally against Gram-positive bacteria and to be inactive against Gram-negative organisms.

The antibiotic was given by mouth or intravenous injection to 38 patients with acute anterior gonococcal urethritis, five with lymphogranuloma venereum, and seven with donovanosis at the Harlem Hospital, New York. It was ineffective in the cases of gonorrhoea (total dosage 1 to 2 g.) and of lymphogranuloma venereum (total dosage 10 to 40 g.), but was effective in cases of donovanosis (total dosage 12 to 28 g.). Side-reactions were minimal, one case only of very mild urticaria being reported.

Neville Mascall


OTHER VENEREAL DISEASE CONDITIONS


The authors applied the Frei test and the complement-fixation test for lymphogranuloma venereum in the investigation of 200 patients attending a clinic organized by the Bureau of Venereal Diseases of the District of Columbia Health Department, Washington. All were negroes of low educational level and most were sexually promiscuous; the ages of the patients varied from 16 to 67 years.

Complement-fixation tests were first performed on the sera of 84 patients, of whom 45 had symptoms and signs suggestive of lymphogranuloma and 39 were presumed to be suffering from asymptomatic infection, although only fifteen of them gave a past history of buboes. The mean quantitative titre (the reciprocal of the highest dilution of serum giving complete fixation of complement) was 80 for those patients with clinical evidence of the disease, 40 for those with history of bubo but no signs, and 20 for the remaining 24 with neither history nor signs. Application of the Frei test to 104 patients with positive serological reactions of varying titre showed no significant correlation between the serological titre and the presence or absence of a positive reaction to the Frei test or the size of such a reaction, while the proportion of positive Frei reactions was much the same in symptomatic and asymptomatic cases. A study of the serological titres in relation to the time since infection, as judged by the statements of patients with a past history of bubo, showed that complement-fixing antibody might persist in comparatively high titre (40) for as long as 20 years. There was, however, a tendency for the titre to diminish with time and also some indication that spontaneous reversal to negativity might occur. There was no evidence to indicate whether persistence of antibody pointed to latent infection; the possibility of reinfection could not be excluded in these cases. Examination and testing of contacts of some patients believed to be suffering from asymptomatic infection indicated that some of these patients were probably infectious.

A. J. King


PUBLIC HEALTH


In this review, from the Wellcome Museum, London, of the principles and practice of the control of yaws, it is first pointed out that the object of an anti-yaws campaign is not merely the reduction of the incidence of yaws to some ill-defined low endemic level, but that the complete eradication of the disease by the recognition and treatment of all infectious and potentially infectious patients,
including contacts and patients in the latent secondary stage. Recognition depends on a careful survey of the whole population by trained local medical auxiliaries. In countries where the rural population lives in large villages or small villages close together, one suitably placed centre is established, but where the population is scattered, house-to-house visits must be made.

Treatment, which is given at a centre staffed by local people, consists ideally in a single intramuscular injection of procaine penicillin in aluminium monostearate (PAM), adults receiving at least 1-2 mega units and children proportionately less; the dose given to contacts is half that given in the infectious stage of the disease.

The author suggests that until some means of detecting the latent stage of yaws has been evolved treatment might be given to:

1. every person who has had active secondary lesions during the preceding 5 years; or
2. every person under 18 to 20 years of age; or
3. all schoolchildren and children aged 2 to 6 years who have yaws or who have a history of yaws. Measures designed to prevent the reintroduction of the disease into an area already controlled are an essential part of the programme. Rural dispensaries, with an itinerant staff and facilities for seeking out cases and for treatment, must be maintained to deal with the few cases that occur after the initial campaign is over. The work of these dispensaries can be extended eventually to include treatment for malaria, bilharziasis, and worm infestation.

The author emphasizes the importance of obtaining the co-operation of the inhabitants and their leaders throughout the campaign.

T. A. Pace


MISCELLANEOUS


Twenty-two patients were given local cortison. The results and observations are similar to those of other authors. They recommend especially subconjunctival administration.

D. Lukić


A detailed discussion with the causes classified under the headings: lids, globe, cornea, iris, lens, vitreous, retina and choroid, optic nerve and optic pathways.

M. H. T. Yuille


CORRECTION

It is regretted that in the abstract (British Journal of Venereal Diseases (1953), 29, 250) of the paper “Trichomonas vaginalis in the Male. The Experimental Infection of a Few Volunteers”, by F. Lanceley and M. G. McEntegart (Lancet (1953), 1, 668), it was erroneously stated that the inoculation of volunteers was carried out at St. Luke’s Clinic, Manchester. The work was, in fact, carried out on patients from the V.D. Department, The Royal Infirmary, Liverpool, whilst they were in-patients in the Newsham General Hospital, Liverpool.