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)


From an examination of the radiographs and the history in 59 cases of infantile congenital syphilis at the University Hospital, Oslo, the authors conclude that the typical changes in the skeleton are due to growth disturbances rather than to the presence of active syphilitic tissue in the bone; further, that such changes are not synonymous with the presence of active syphilis. They point out that from the width of the zones of rarefaction and the position of the growth lines and newly-formed subepiphyseal normal spongiosa, the time of onset of the growth disturbance can be deduced and the duration of effective treatment of the mother determined. The periosteal changes are probably largely due to growth disturbances and secondary traumatic influences. These observations do not, however, apply in cases of late congenital syphilis. It is suggested that as the bone lesions usually heal without leaving a scar or deformity, they are unlikely to be due to destructive inflammatory lesions. The authors state in conclusion that "while no irrefutable proof has been offered of the bone changes in infantile congenital syphilis consisting of syphilitic granulation tissue... the designations syphilitic endochondritis, diaphysisitis, and periositis should be abandoned in favour, for example, of osteochondroperiostitis".

G. W. Csonka


After a full review of the literature, the authors describe an investigation at the Wills Eye Hospital, Philadelphia, into the occurrence of chorioretinitis in patients with congenital syphilis. For this purpose they studied 223 cases of congenital syphilis with interstitial keratitis and also 71 cases of congenital syphilis without corneal involvement. The great majority of the 223 patients in the former group were between the ages of 8 and 25 years; in the latter group were 54 children without any ocular complaint, and seventeen patients (mostly adults) having some ocular involvement. Of the subjects with keratitis, thirty had signs of chorioretinitis and eighteen had perivascular sheathing. Of patients without keratitis, twelve had choroidal scarring and eight had perivascularitis.

According to the authors, the chorioretinal scarring did not fall easily into the four types described by Sidler-Huguenin. The main feature was pigmentary disturbance, either granular or in annular zones. Changes resembling retinitis pigmentosa were found in three cases only, none of them associated with keratitis. Macular involvement occurred bilaterally in three and unilaterally in six of the 42 patients with chorioretinitis. The authors consider that the 26 cases with perivascular sheathing provided a large enough group to justify the recognition of this manifestation as a valuable diagnostic sign.

J. E. M. Ayoub


The author, working at a venereal disease clinic of the Los Angeles City Health Department, has investigated 144 cases in which an anticomplementary (AC) reaction was obtained in the complement-fixation test for syphilis. He classes such reactions as

(a) extrinsic, due to faulty technique in the collection of the specimen or execution of the test,
(b) intrinsic, where they are due to some property inherent in the serum.

All the reactions investigated were thought to belong to the latter group. In 137 cases the AC reaction was obtained with serum, in five with cerebrospinal fluid, and in no with both serum and cerebrospinal fluid; 127 of the patients were classed as syphilitic on grounds other than the complement-fixation test, nine as probably syphilitic, and eight as non-syphilitic.

No difference in sex or racial distribution was found between patients giving AC reactions and the general
clinic population from which they were drawn, but a disproportionate number of the former were below 15 years of age. In the clinic population, 3-92 per cent. of patients with syphilis had congenital infections, whereas of the 127 syphilitic patients giving AC reactions, 35 (25-9 per cent.) had congenital syphilis.

An AC reaction was obtained on retesting after an interval of 2 weeks or longer in 57 cases (21 of congenital, 34 of acquired, and two of probable syphilis); in only one of the seven cases was a second AC reaction obtained with cerebrospinal fluid. The serum of 22 patients gave AC reactions twice, of seventeen three times, of seventeen from 4 to 8 times, and of one on no fewer than 21 occasions; this last patient had primary syphilis. The observed incidence of repeatedly anticomplementary reactions among congenital syphilis is almost ten times that to be expected if AC reactions were equally distributed among all stages of syphilis.

The author concludes that "because of the heavy participation of syphilis in general and of congenital syphilis in particular in the anticomplementary reactions, thorough examination and serological follow-up of persons with anticomplementary reactions should be made, especially of those with "repeatedly anticomplementary reactions".

A. E. Wilkinson


The author has observed some signs of reversibility of the Argyll Robertson pupil in three patients with tabs, treated by an original preparation of sodium iodide, magnesium thioulate, thiamine, and a local anaesthetic, administered intramuscularly. H. Moutinho


The good visual and clinical effects of cortisone on interstitial syphilitic keratitis, lead the authors to think that the corneal manifestations of hereditary syphilis may be considered as a real adaptation disease. It is an allergy more than an infectious syndrome. J. Rougier


The character, origin, and diagnostic significance of pupillary changes in neurosyphilis are discussed. Pupillometric evidence is offered in support of the view that intracranial involvement occurs early in syphilis.

H. E. Robbs


Description of a case. The gummatous character of the infiltration was proved by microscopic examination of the excised gland.

M. Klima


In a discussion of the difficulties in the diagnosis of syphilis in general the author stresses the special difficulties of diagnosis in iridocyclitis in which a syphilitic aetioloxy is suspected. As it is impossible to prove the presence of the micro-organism in the eye, iridocyclitis in a patient with sero-positive reactions which responds to antisyphilitic treatment is often regarded as syphilitic in origin. This diagnosis, however, should be accepted with reserve.

J. ten Doesschate


SYphilis (Pathology)


Between 1940 and 1952 the authors have observed 37 patients with pneumonia in whom the result of the Wassermann reaction was transiently positive. All but three of the patients had fever lasting 7 to 10 days, the illness beginning in most cases with general symptoms rather than those of respiratory tract infection. In two cases there were no symptoms at all, while in fifteen there were signs of diffuse bronchitis, in sixteen of pneumonia, and in the remaining four cases there were no abnormal signs in the lungs. The radiographic abnormalities consisted of ill-defined areas of mottling of various sizes, which usually disappeared in 3 to 5 weeks; in four cases the hilar shadow was enlarged. The positive Wassermann reaction was usually obtained 3 to 4 weeks after the radiographic abnormalities had cleared up. The presence of cold agglutinins was not demonstrated. There were no abnormal physical signs in the nervous system, but of fifteen cases in which lumbar puncture was performed, in three some abnormality was found in the cerebrospinal fluid. The authors believe that in these cases the pneumonia was due to a virus. Similar cases have previously been reported as "pseudo-luetische peripherale bronchopneumonie" and "Wassermann-positive lung infiltrations".[The cases described in this paper seem to differ from other cases of pneumonia only in having a transiently positive Wassermann reaction, but this has been recorded in many diverse febrile illnesses. There is no convincing evidence that the condition was due to a virus. To describe it as a new disease entity hardly seems justified, and may be misleading.] J. R. Bignall

Production of Immobilizing Antibodies unaccompanied by Active Immunity to Treponema pallidum as shown by injecting Rabbits and Mice with the Killed Organisms. MCLEOD, C. P., and MAGNUSON, H. J. (1953). Amer. J. Syph., 37, 9. 15 refs.

A study was carried out at the U.S. School of Public Health, Chapel Hill, North Carolina, of the immunological response of rabbits and mice to killed inocula of the Nichols strain of Treponema pallidum. The results confirmed the findings of other investigators that the presence of reagin does not confer immunity in rabbits, and that the immunological response of the experimental host to injections of killed T. pallidum is influenced by:

(1) the method of killing the organisms,
(2) the number of organisms injected,
(3) the species of animal used, and possibly
(4) the duration of immunization.

Injections into rabbits of relatively small numbers of organisms killed by heat or by "mapharsen" (oxyphenarsine) caused an appreciable rise in the treponemal
immobilizing (T.P.I.) titre, standard serum tests changing from negative to positive reactions. Control injections of heated or mapharsen-treated normal testicular tissue did not elicit these responses. Of thirteen rabbits tested twelve developed immobilizing antibody, and all of the thirteen developed reagin after inoculation with heat-killed treponemes. It was later possible to infect the "immunized" rabbits with an intracutaneous injection of 200 living organisms, although nine out of twelve surviving animals showed immobilizing antibody at the time of challenge.

Mice inoculated with $8 \times 10^4$ living T. pallidum did not develop immobilizing antibody or immunity to reinoculation within 3 months. When later 30 and 200 million heat-killed organisms were injected, although the T.P.I. titre rose, there was likewise no immunity to reinoculation.

G. L. M. McElligott


The authors, at the Medical Research Institute, Colombo, carried out a series of parallel tests on 15,057 specimens of serum with the Meinicke (Kvittingen), Mueller Ballung (clotting), Kahn, and cardiolipin (Kline) techniques. Exact clinical information was available for 2,560 specimens. The technique of the first two of these tests was slightly modified and is briefly described. It is pointed out that the Meinicke (Kvittingen) test requires only minimal apparatus and is carried out on non-inactivated serum, and that under certain tropical conditions (for example, in Colombo) no moist chamber at 37° C. is necessary. Further tests are being performed to determine an average threshold of atmospheric humidity permitting the moist chamber to be dispensed with. [Under European climatic conditions this is, however, an essential part of the technique.]

The results of the cardiolipin test showed the best agreement with the positive clinical diagnoses, but the test was less specific with non-syphilitic sera, whereas the Meinicke (Kvittingen) test gave the lowest percentage of false positive results. It is pointed out that the Mueller Ballung test takes a very long time (18 hours) at room temperature. The high temperature prevailing in Colombo tends to induce non-specific clotting, the room temperature of 17° C. recommended for the preparation of the antigen being difficult to procure in the Tropics.

A paired comparison of percentage agreement was made, the best over-all agreement, and also that for positive sera, being obtained with a combination of the Kahn and cardiolipin tests; for non-syphilitic sera the Kahn-Meinicke combination showed the highest agreement. Almost as good agreement was, however, found with combinations of the other tests; but as the combination cardiolipin-Meinicke is the most easily performed, it is recommended. The eminent suitability of the Meinicke (Kvittingen) test for field investigations is stressed.

Ferdinand Hillman


BRITISH JOURNAL OF VENEREAL DISEASES


Search for Treponemes in Mice with Experimental Syphilis. HARD, S. (1953). Acta derm.-venereol. (Stockh.), 33, 342. 6 figs, bibl.

SYPHILIS (Therapy)


The value of anti-syphilitic and malarial treatment of tabetic optic atrophy is doubtful. This treatment may even be dangerous. Better results are obtained by organic extracts which act as vasodilators and may also exercise a hormonal influence. The placenta contains four hormones: follicular, corpus luteum, chorionic, and the male hormone. All four are vasodilators, as are the tissue hormones of the placental histamine and choline. The hormone contents of the placenta are highest in the third and fourth month of pregnancy. No difference, however, could be found in the therapeutic effect of young or ripe placental tissue. Of ten cases treated, six were much improved, two only slightly, and two not at all.

H. Lytton


GONORRHOEA (General)


With the object of determining whether penicillin can replace silver nitrate as a prophylactic against conjunctivitis in the newborn, the authors applied penicillin ointment and silver nitrate during alternate months to the eyes of all newborn infants at St. Paul's Hospital, Vancouver. Penicillin ointment, 2,500 units per ml., in a base which was insoluble in water, was instilled into the conjunctival sac of each eye three days a day for
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three days, beginning immediately after birth. In a second series of cases 100,000 units of penicillin per ml. was instilled in one application immediately after birth. All the infants were observed during their stay in hospital for evidence of redness in the eye, lacrimation, purulent discharge, or swelling of the lids. One month after birth and two months post partum a questionnaire was sent to all mothers.

None of the infants who had penicillin or silver nitrate required treatment for ocular infection. In those treated with silver nitrate an immediate chemical reaction was observed, with swelling of the eyelids, redness, and discharge. Similar signs of irritation were seen in the infants receiving several applications of penicillin ointment, and this was attributed to repeated manipulation of the eyelids, since none of the infants receiving a large single application of penicillin ointment showed any signs of irritation. All the infants in a control group treated with an ointment which did not contain penicillin developed conjunctivitis. The questioner revealed slightly fewer complaints from the mothers of the penicillin-treated infants than from the mothers of infants treated with silver nitrate.

C. McCulloch


A group of 1,703 newborn infants received Sulmefrin (Sulmefrin Ophthalmic, Squibb) at birth; a second group of 1,127 infants received sodium sulphacetamide ointment (Schering); a third group of 1,175 infants received silver nitrate 1 per cent.; and fourth group of 640 infants received, alternate cases, 1 per cent. silver nitrate and 10 per cent. sodium sulphacetamide.

In the entire series of 4,326 infants there were only three cases of gonorrhoeal ophthalmia. Modern methods of prenatal care are probably more important than any prophylactic preparation in decreasing this incidence. Inclusion conjunctivitis occurred in 7 per cent. of infected eyes from the group treated with sulphate preparations but in only 1 per cent. of infected eyes in the group treated with silver nitrate. The incidence of chemical reactions with silver nitrate exceeds the incidence of conjunctival infection, while with sulphate preparations chemical reactions are negligible.

C. McCulloch


Report on the prophylactic use of penicillin in water solution (10,000 u. in 3 ml. water) in 4,528 newborn children, instead of Credé's prophylaxis. The incidence of non-specific conjunctivitis was decreased from 11.01 per cent. to 2.53 per cent.

W. Leydhecker

Epidemic Gonococcal Conjunctivitis in Algeria. Cases collected in the Southern Territories. (La conjonctivite gonococcique épizémique en Algérie. A propos d'ob-


GONORRHOEA (Therapy)


Although several previous reports on the treatment of gonorrhea with chloramphenicol have indicated the effectiveness of relatively small total doses ranging from 0.75 to 6 g., Greaves and others (J. vener. Dis. Inform., 1950, 31, 261) claim to have obtained satisfactory results with a single oral dose as small as 0.75 g. In view of this finding, the present authors, in an investigation at the Venereal Disease Clinic of the Health Department of Detroit, Michigan, set out to evaluate the effectiveness of a single oral dose of chloramphenicol in the treatment of gonorrhoea, comparing their results with those obtained from the administration of penicillin.

A total of 1,718 males suffering from acute gonorrhoeal urethritis was divided into two groups of 904 and 814 patients respectively. In the first group 460 patients were given a single oral dose of 1 g. chloramphenicol and 44 received penicillin; in the second group, 409 patients were given 2 g. chloramphenicol in a single oral dose and 405 received penicillin. The penicillin treatment in each case consisted of a single intramuscular injection of 300,000 units procaine penicillin in oil with aluminium monostearate. Patients were examined 1, 2, 3, 7, and 15 weeks after treatment, but the difficulty of deciding "reinfection" or "failure" at 7 days prompted the authors to carry out the first post-treatment examination after 2 days in the later cases under review.

Between 50 and 60 per cent. of patients in each group reported for follow-up examination. At the end of one week negative urethral cultures were found in 88.7 per cent. of patients receiving 1 g. chloramphenicol and in 93.3 per cent. of those receiving 2 g., whereas in the penicillin-treated series the figures were 97.4 per cent. and 96.6 per cent. respectively. In this connexion the authors stress the importance of cultural as against purely clinical evaluation of results.

No serious side-reactions occurred in any of the groups, though some patients complained of mild gastroenteritis, dizziness, or "bad taste". The risk of the development of aplastic anaemia after repeated or indiscriminate administration of chloramphenicol is stressed. In instances of undoubted reinfection, cure was obtained by re-administering the same drug, suggesting that the gonococci were not resistant to the particular drug used in these cases.

The authors conclude that while penicillin remains the drug of choice in the treatment of acute gonorrhoea, the nearly similar results obtained with oral administration of 2 g. chloramphenicol suggest that this drug may be substituted for penicillin when the latter is not available or is contraindicated.

Douglas J. Campbell


CHEMOTHERAPY


OTHER VENEREAL DISEASE CONDITIONS


To the three cases of Reiter's syndrome treated with ACTH already reported in the literature the authors add four more which were seen at the Veterans Administration Hospital, Des Moines, Iowa.

The first patient, a man of 24, had a severe attack of Reiter's syndrome which did not respond to administration of salicylates, penicillin, streptomycin, or a non-specific protein; he resisted physiotherapy because of pain and stiffness in the joints. After a course of ACTH in doses of 25 mg. every 6 hours, the patient was able to walk, his appetite and general condition improved, and physiotherapy could be carried out satisfactorily. Hospital treatment in this case lasted 7 months.

The second patient had an even more severe attack of Reiter's syndrome, which required 15 months' hospital treatment. The authors believe that had it not been for the administration of ACTH physiotherapy in this case would have been impossible and the residual deformity would have been severe.

The third patient, who had the most severe attack of Reiter's syndrome, became refractory to ACTH, and marked osteoporosis developed. Physiotherapy, although painful, was persisted in, as was administration of ACTH, and the patient recovered completely, the duration of treatment having been 17 months.

The fourth patient, who had a less severe attack than the others had a short course of cortisone, with temporary relief of symptoms, before admission to hospital. Arthritis recurred and he was admitted to hospital, where administration of ACTH permitted physiotherapy to be maintained until all joint distress had disappeared.

The authors conclude that ACTH has a definite place in the management of Reiter's syndrome.

James D. P. Graham


The authors describe the results of urethral inoculation of a pure culture of Trichomonas vaginalis in five male volunteers at St. Luke's Clinic, Manchester; five other male volunteers receiving an inoculation of a sterile culture medium served as controls. A strain of T. vaginalis, isolated 4 months previously from a patient with vaginitis, was maintained in bacteria-free culture in a modified cysteine-peptone-liver-maltose medium which consistently grew 2,000,000 protozoa per ml after 24 hours' incubation, this count being confirmed for the culture used to infect the volunteers. After the subjects had passed urine, 2 ml of the inoculum was instilled by means of a warm pipette about 1½ inches (3-75 cm.) into the urethra. The subjects were examined at 7 a.m. and 11 a.m. each day for the first 10 days and thereafter at longer intervals. The 7-a.m. urine was centrifuged and examined for trichomonads, and at 11 a.m. scrapings from inside the urethra were also tested; sometimes even when there was a urethral discharge, these scrapings provided the only evidence of the presence of T. vaginalis.

No abnormality was observed in the controls. All five of the infected subjects had a mild transient urethritis in the first 24 hours, but no trichomonads were recovered. The presence of the organism was, however, demonstrated in three of these five infected subjects from the 6th to 9th days after inoculation, the urethritis having become moderately severe. The authors suggest, therefore, that in all patients with non-specific urethritis an investigation for the presence of T. vaginalis should be carried out several times over a period of 7 to 10 days from the probable date of infection. The protozoa persisted for 44 to 94 days in two patients who developed a mild prostatitis, but examination of serum from these patients failed to reveal antibody to the protozoa. T. Anwyl-Davies
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Report of a case of atypical Reiter's syndrome in a female with conjunctivitis and keratoderma. The pathogenic relationship to gonococcal infection is discussed.

E. Godtfredsen


In the 23 cases reported, ocular involvement was restricted in the main to a mild or moderate bilateral conjunctivitis. The authors present evidence which suggests that the disease may be due to a venereal infection.

J. R. Hudson


PUBLIC HEALTH


This paper gives an account of one of the activities of the World Health Organization (W.H.O.) in the investigation of a group of diseases due to infection with closely related treponemes, the acute and chronic pathological conditions caused by which result in incapacitation and invalidism on such a scale as to be of considerable social and economic importance. In addition to syphilis, which is widely spread throughout the world, there are a number of important geographical "pockets" of treponemal infection, such as the "endemic syphilis" of Bosnia, Yugoslavia, Madras, Bechuanaland, and Tahiti, "njovera" of Southern Rhodesia, "bejel" (a non-venereal treponemal infection of children in the Eastern Mediterranean area), and yaws and pinta, which are confined to tropical and semi-tropical regions. Unfortunately in all these areas facilities for serodiagnosis are extremely inadequate and likely to remain so. Under projects organized by W.H.O. during a period of less than 3 years, 9,000,000 persons have been examined and over 3,000,000 treated with penicillin, which is the most efficient and safest therapeutic agent for all the treponematoses. Successful treatment has been found to depend on the maintenance of an effective plasma level of penicillin for an adequate period. For this purpose the most economical method of treatment is to give 1 to 2 mega units procaine benzylpenicillin in oil with 2 per cent. aluminium monostearate (P.A.M.), repeated if possible after an interval of 3 to 5 days. The need for the proper standardization of P.A.M. is stressed and the minimum specifications established by W.H.O. are described.

There appears to be ample evidence that mass treatment of clinically diagnosed treponemal disease in the early stages alone will not suffice to stamp out the disease and that there must also be supplementary long-term measures if such projects are to succeed. There also seems to be a strong case for the "preventive" or "abortive" treatment of contacts, but on this point medical opinions differ. In general it is concluded that results will be far from satisfactory unless 90 per cent. of a population are examined and unless re-checking is carried out after an interval of 6 to 12 months. [It is doubtful whether this could ever be achieved without a far greater degree of cooperation of the population concerned than has yet been obtained.]

Neville Mascall

[The above article should be read in conjunction with a previous paper by two of the authors (Reynolds and Guthe, Amer. J. Syph., 1952, 36, 424; Abstracts of World Medicine, 1953, 13, 114), which covers much the same ground.—EDITOR]

Community Organization for Mass Testing Programmes.


MISCELLANEOUS


Four cases of the oculo-glandular syndrome are reported which gave positive tests with the antigen of cat-scratch disease (probably a virus infection).

P. D. Trevor-Roper


