Abstracts

This section of the JOURNAL is published in collaboration with 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).

Each subsection of abstracts includes titles of articles that have been noted but not abstracted.

Syphilis (Clinical)


Syphilis (Serology)


It has previously been shown that peripheral lymphocytes from syphilitic patients were transformed into blast forms in significant numbers when exposed to dead pathogenic treponemes. In the present study 108 patients with syphilis in all stages and sixteen non-syphilitic controls were tested by the lymphocyte transformation test using Nichols strain as antigen. A transformation of 3 per cent. or more was taken as a positive reaction. In the sixteen controls five showed 1 per cent. transformation of lymphocytes and in eleven there was no stimulation. The test was positive in five of seven primary syphilitics, in seven of eight with secondary syphilis, in all of four with latent syphilis, in all of five with cardio-vascular syphilis, and in nine of twelve with neurosyphilis. Analysis showed that blastogenesis after immunological stimulation was already evident in seronegative primary syphilis and in late syphilis as long as the TPI remained positive. G. W. Csonka


Immunoglobulins were quantitatively determined by radial immunodiffusion in 200 patients with early syphilis and 100 controls. In the earliest stages IgM was raised followed by an increase of IgG. During the secondary stage of syphilis, IgG was high and IgM declined. There was a correlation between IgG and the FTA test. In late syphilis and presumably cured syphilis, IgM approached normal values. IgA was increased in the later stages of syphilis but it was also high in subjects with biological false positive reactions.

It is suggested that the antibodies in secondary syphilis belong mainly to the IgG group and that determination of immunoglobulins could complement the FTA test and that in special cases the FTA-200 and FTA-ABS tests should be undertaken quantitatively with a monospecific anti-IgM and anti-IgG antihuman serum which may allow prognostic and therapeutic conclusions to be drawn. G. W. Csonka

Demonstration of Precipitins against a Treponemal Antigen by Counter-immunoelectrophoresis Banffer, J. R. J. (1972) Lancet, 1, 996

The antigen was a lysate of Reiter treponemes obtained by ultrasonic disintegration. This was used at a concentration ten times that of the antigen for the Reiter protein complement-fixture test (RPCFT). Electrophoresis was carried out on slides coated with 0-85 per cent. agarose in 0-02 M barbital buffer pH 8-2 with parallel sets of wells 5 mm. in diameter with their edges 3 mm. apart. Serum was put into the anodal and antigen into the cathodal well, and a current of 4 mA/cm. was passed for 50 min.

No precipitin lines were seen with 100 sera from healthy blood donors, all of whom had negative serological tests for syphilis. Lines were produced by 161 of 162 sera which gave positive RPCFT tests at titres of 1 in 2 to 1 in 32; the one found negative had a RPCFT titre of 1 in 4. The method is thought to be promising and has the advantage that it is not affected by anticomplementary properties of the sera tested. A. E. Wilkinson

[Reprinted from Abstracts on Hygiene, by permission of the Editor]


6,278 sera received for routine testing by the VDRL test were examined by the FTA-ABS test performed manually (M) and by an automated
procedure (A) for processing and staining the slides. Both tests were read by the same observer.

2,505 sera gave reactive VDRL tests. The results of the 2 FTA-ABS tests agreed in 98.2 per cent. of these; 36.2 per cent. were reactive by the M and 35.3 per cent. by the A method; the latter gave almost twice as many borderline results which account for most of the discrepancies. A further 3,773 sera gave negative VDRL tests; FTA-ABS tests on these showed 99.8 per cent. agreement between the two methods. The M test was reactive in 12.77 per cent. and the A test in 12.53 per cent. No clinical data were available to evaluate these reactive results, the majority of which gave only weak (1+) fluorescence. A. E. Wilkinson

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Atypical FTA-ABS test


4 refs

Syphilis (BFP phenomenon)


In tests carried out at the University of Palermo, 0.1 ml. 1.0 M 2-mercaptoethanol (2 M-E) in buffered saline (PBS) was added to 0.9 ml. inactivated serum; the mixture was left at room temperature for 12 hours and then dialysed against PBS for 36 hours. In control tests PBS was substituted for 2 M-E. Kolmer 1/5 volume and quantitative VDRL tests were then performed. The sera tested were:

(a) fifteen from patients with connective tissue disorders which had given false positive reactions as judged by the clinical findings and non-reactivity of the TPI and FTA-ABS tests;

(b) fifteen in which the false positive reaction was found by chance (5), in association with liver disease (6), or with tumours (4).

In Group a treatment with 2 M-E abolished reactivity in the Kolmer test in eleven out of twelve sera in which reactivity was still present in the control test after dialysis. In contrast, reactivity in the VDRL test was still present in eight out of twelve sera, although at a reduced titre. In Group b treatment with 2 M-E abolished reactivity in both the Kolmer and VDRL tests in all ten sera which were still reactive in the control specimens after dialysis.

It is suggested that the finding of reactivity resistant to 2 M-E in false positive sera from apparently normal persons may be a pointer to the presence of a connective tissue disorder. A. E. Wilkinson

[Reprinted from *Abstracts on Hygiene*, by permission of the Editor]

Syphilis (Experimental)

Treponeme-like Forms in Chimpanzee Aqueous Humor and Cerebrospinal Fluid


26 specimens of aqueous humour (AH) and 23 of cerebrospinal fluid (CSF) were examined at the Center for Disease Control, Atlanta, Ga., from twenty chimpanzees, sera from which gave negative FTA-ABS tests before experimental inoculation. No definite treponeme-like forms (TLF) were seen by direct immunofluorescence staining, but suspicious forms were seen in one specimen of AH and one of CSF.

A further 135 specimens of AH and 110 of CSF were tested from 25 animals with reactive FTA-ABS tests. These included eight found reactive when first received (natural reactors), six which had been infected with a human strain of *Treponema pallidum* 2 to 3 years previously and six with experimentally produced pinta of 1 to 2 years’ duration. Other animals with experimental syphilis had been treated with penicillin 3 to 4 years before the tests. Three definite TLF were found: one in CSF from a natural reactor before any inoculation had been given, one in CSF from a natural reactor 84 days after inoculation with *T. pallidum*, and one in an animal infected intradermally with pinta 15 months previously. Fifteen suspicious forms were seen in AH and four in CSF from these 25 animals, none of which showed any signs of ocular or neurosyphilis on examination.

200 rabbits were inoculated intratesticularly with AH or CSF from each of the chimpanzees and observed for 1 to 11½ years. One rabbit developed reactive FTA-ABS and VDRL tests after inoculation with CSF from a natural reactor inoculated with *T. pallidum*; a definite TLF had been seen in this CSF. Three other rabbits inoculated with the same material remained unaffected. Inguinal nodes from the rabbit showing seroconversion were passed to four further rabbits and all these developed reactive FTA-ABS and VDRL tests within a month. [It is not stated whether treponemes were seen in these or the original rabbit.]

A. E. Wilkinson

[Abstracts]


Serial specimens of serum and cerebrospinal fluid (CSF) were collected over a period of 4 years from four chimpanzees which had been infected by the intradermal inoculation of *Treponema pallidum* isolated from a human lesion. VDRL and FTA-ABS tests were performed on serum and CSF; TPI and FTA tests on undiluted and diluted CSF were also carried out. Before inoculation the CSF of the animals was non-reactive as was the serum of three, the fourth animal having a positive FTA-ABS test.

VDRL and FTA-ABS tests on the serum became reactive at about the same time, but in one animal the FTA-ABS test was reactive 20 days before the VDRL. Reactivity in the CSF was noted 28 to 62 days after inoculation. The FTA test without absorption appears to have been the most sensitive test, it became positive 14 to 29 days before the VDRL in...
three of the animals; the reverse was true of the fourth, the serum of which had given a positive FTA-ABS test before inoculation. The TPI test gave fluctuating results on CSF from two animals and became consistently reactive in only one. FTA tests with Reiter treponemes as antigen appeared less sensitive than those with T. pallidum.

The authors think that serological reactivity of the CSF represents the production of antibody in response to invasion of the central nervous system with T. pallidum and is not due to leakage or transfer of antibody from the serum. The testing of undiluted CSF by the FTA test without absorption may be useful as a diagnostic method in human syphilis.

[No details are given about the cell count and protein content of the specimens of CSF; these are usually the most sensitive indices of active neurological involvement in syphilis.]  
A. E. Wilkinson

[Reprinted from Abstracts on Hygiene, by permission of the Editor]

Investigation of Exotic Treponemes (Untersuchungen über exotische Treponemenstämme)
Nichols strain, a European strain of venereal syphilis, and a strain isolated from a case of yaws in Africa were inoculated intrathecally into rabbits and passed. The differences seen at first between the strains became less with passage and there was a tendency for all strains tested to approximate to the picture given by the Nichols strain which has a long history of rabbit adaptation. The only significant difference which persisted was the inability of treponemes isolated from yaws to produce skin lesions after intracutaneous inoculation. If external influences are responsible for the different disease entities due to basically the same treponeme, it will not be possible to eradicate venereal syphilis unless the non-venereal types are also successfully eliminated.

[This study supports the unitary theory of treponematosis.]  
G. W. Csonka

Acute perihepatitis is a rare, and in Europe, little known complication of genital gonorrhoea which occurs almost exclusively in young women. The disease picture, which was observed in five patients during one year, mimics acute gall bladder disease. It is characterized by acute upper abdominal pain with pain referred to the right shoulder and signs of peritoneal irritation in the right upper abdomen quadrant. In all patients there was an adnexitis pointing to the diagnosis. In addition gonococci could be identified in urogenital secretions in four cases. In four cases, after successful treatment with penicillin, typical "violin string" adhesions round the liver could be demonstrated at laparoscopy or operation.  
Authors’ summary

122 patients with acute uncomplicated gonorrhoea were given a single injection of 4 m.u. penicillin. 139 patients received 2-5 g. Thiamphenicol by mouth. In addition, volunteers were given the same medications for the determination of serum levels and rabbits were infected with T. pallidum and received equivalent doses of these antibiotics.

It was found that the cure rate of gonorrhoea with 4 m.u. penicillin was 92-6 per cent. and with 2-5 g. Thiamphenicol 94-2 per cent., which is somewhat lower than that achieved with divided doses of penicillin. It is therefore recommended that the single-dose treatment be reserved for men only. The animal experiments showed that the single-dose treatment gave adequate serum levels for 24 hrs which were sufficient to cure syphilis in its early incubation period, and it is assumed that these would be sufficient to cure syphilis in man if it had been
contracted at the same time as the gonorrhoea.  
G. W. Csonka

Rifampicin in the Treatment of Acute Gonorrhoea  
HOPSU-HAVU, V. K., and HELANDER, I. (1972) 
Z. Haut-u. Geschl.-Kr., 47, 441 
3 figs, 14 refs

53 patients with acute gonorrhoea were treated with a single oral dose of 900 mg. rifampicin. Eight cases (15 per cent.) failed on this treatment and were successfully re-treated with penicillin. Sensitivity studies showed that some strains were partially resistant to rifampicin and that one strain was very resistant to the antibiotic. The clinical results accorded well with the antibiogram. These results are less good than those previously reported and it is possible that they could have been improved if a higher dose had been given. One advantage of rifampicin in the treatment of gonorrhoea is its reported ineffectiveness against T. pallidum, which means that it is unlikely to mask concomitant syphilis.  
G. W. Csonka

Gentamicin in Gonococcal Urethritis of Filipino Males: Dosage and Response 

The lessened sensitivity of the gonococcus to penicillin and other antibiotics makes it necessary to evaluate the efficacy of newer antibiotics. The authors treated 180 Filipino males suffering from uncomplicated gonococcal urethritis with gentamicin. Diagnosis was established by the examination of Gram-stained smears. Cultures were taken routinely from all the patients; gonococci were grown in only 56 of them, and disc sensitivity tests showed that all were sensitive to gentamicin.

Six schedules of treatment were adopted, the drug being administered intramuscularly:
I. 80 mg. to those weighing under 60 kg. and 120 mg. to those weighing 60 kg. or more.
II. The same dose was repeated on the following day.
III. 120 or 160 mg. was given, according to body weight as before.
IV, V. and VI. 160, 240, or 280 mg. respectively were given irrespective of body weight.

Follow-up examinations were made 2, 5, and 12 days after treatment, urethral cultures being taken routinely after treatment. Serum levels were determined in eight patients. Peak levels (10.5 to 18.5 mg./ml.) were achieved 30 to 60 min. after administration of the drug. Almost total elimination had occurred by 12 hours. 160 (89 per cent.) of the 180 patients were followed. There were twelve patients on Schedule I and sixteen on Schedule II; all were followed, the cure rates being 42 and 56 per cent. respectively. In Schedule III 31 of 36 patients were followed, 58 per cent. being cured. In the remaining three Schedules, 22 of 26, 45 of 53, and 34 of 37 patients respectively were followed, and the cure rates were 73, 84, and 100 per cent. respectively.

A linear and direct relationship between the mean daily dose and the rate of cure was noted.

No immediate allergic reactions were seen nor was there any evidence of oto-toxicity. A mild rash in two patients and severe local pain lasting for more than a day in another two were the only adverse reactions to treatment.

Thus the authors, using increasing doses of gentamicin, found that 280 mg. was an effective and safe dose for the condition.  
C. S. Ratnatunga

Gonorrhoea in Women: Treatment with Sulphamethoxazole and Trimethoprim 

After publication of a study describing the successful oral treatment of men suffering from uncomplicated gonorrhoea with sulphamethoxazole-trimethoprim, this combination of drugs was used to treat women suffering from gonococcal urethritis and cervicitis. In every case, the diagnosis was confirmed by culture of Neisseria gonorrhoeae. Sulphamethoxazole-trimethoprim was given in the form of Bactrim (Roche); two tables (each one containing 400 mg. sulphamethoxazole and 80 mg. trimethoprim) were taken night and morning for 5 days. 116 infections in 115 women were treated [103 returned for assessment]. Only two therapeutic failures were observed, and another two women were re-infected within a month of treatment, one on two occasions. Skin reactions to treatment were mild and infrequent. Haematological investigation did not reveal any evidence of blood dyscrasia. This oral preparation can be recommended for the treatment of uncomplicated gonorrhoea in women who can be relied upon to take it as directed.  
Authors' summary

Isovitalex—A Chemically Definable Enricher of Culture Media for Neisseria gonorrhoeae  


Screening Females for Asymptomatic Gonorrhoea 


In vitro Drug Sensitivity of Neisseria gonorrhoeae Strains and Blood Penicillin Levels after Various Penicillin Preparations 

Immunoechemical Investigations on Neisseria gonorrhoeae Endotoxin 
I. Characterization of Phenol-Water extracted Endotoxin and Comparison with Aqueous Ether Preparations 
MAELAND, J. A., and
Non-gonococcal urethritis and allied conditions

*Corynebacterium vaginale* Vaginitis in Pregnant Women


The authors studied the incidence of *Corynebacterium vaginale* (Haemophilus vaginalis) vaginitis in 439 pregnant women at the New Hanover County Health Department clinics. This formed part of a larger study of 1,008 patients reported elsewhere (see following abstract). Clinical evaluation and specimens for culture were taken by the same physician.

Isolations of *C. vaginale* were obtained from 62 (44.0 per cent.) pregnant women with symptoms or signs of vaginitis and from only 31 (10.4 per cent.) of those without symptoms. Among non-pregnant *post partum* patients there were thirteen isolates (27.0 per cent.) and in the whole non-pregnant group there were 96 isolations (17.4 per cent.). There were 189 isolations (18.9 per cent.) in the total patient population of 1,008.

Statistical analysis of the results showed that:

1. There was a higher incidence of isolations among pregnant than non-pregnant patients;  
2. In pregnancy isolations were more frequently obtained from those with vaginitis than those without it;  
3. There was no significant difference in the rate of isolations in the different trimesters of pregnancy nor between postpartum and non-pregnant women.

In view of the association between vaginitis and the presence of *C. vaginale* the authors conclude that the organism is a definite vaginal pathogen.  

**C. S. Ratnatunga**

*Corynebacterium vaginale* Vaginitis


The authors briefly review the literature regarding vaginitis due to *Corynebacterium vaginale* (Haemophilus vaginalis), discuss the taxonomic position of the organism and the laboratory diagnosis, and mention the treatment of the condition. They then report the findings in 1,008 patients from whom vaginal cultures were taken for *C. vaginale*. The clinical assessment was made by one physician who also took all the specimens. This paper deals with the 569 non-pregnant patients, the findings on the pregnant and *post partum* patients having been reported elsewhere (see previous abstract).

Among the total patient population, positive cultures were obtained in 117 of 249 patients with vaginitis and in only 72 of 759 patients without vaginitis. Among non-pregnant patients, the corresponding figures were 55 of 108 and 36 of 461. There were seven isolations from 36 patients who were using an intrauterine contraceptive device (IUD), 36 from 232 on oral contraceptives, and 146 from 744 not using either an IUD or the pill.

The results when statistically analysed confirmed a higher isolation rate in patients with vaginitis than in those without it; there was no significant difference in the rate of isolation between those using an IUD and those using no contraceptive at all.

The findings support the view that *C. vaginale* is a definite vaginal pathogen.  

**C. S. Ratnatunga**

*Salivary Vulvitis*  
**DAVIS, B. A.** (1971) *Obstet. and Gynec., 37*, 238 7 refs

The case histories are given of six patients in whom vulvitis seemed to be related to the practice of frequent orogenital contact. The causative factor was believed to be either the saliva itself or in some cases its bacterial content. This sexual practice should be particularly considered as a cause of vulvitis when vaginal culture shows an unusual flora or when there appears to be no obvious vaginitis in the presence of a marked vulvitis.

**P. Rodin**

*Isolation of T-mycoplasmas from Dogs and Squirrel Monkeys: Biological and Serological Comparison with those Isolated from Man and Cattle*  
Mycotic Endometritis due to Candida. A Case Report
RODRIGUEZ, M., OKAGAKI, T., and RICHART, R. M. (1972) Obstet. and Gynec., 39, 292

Differentiation of TRIC and LGV Organisms based on Enhancement of Infectivity by DEAE-Dextran in Cell Culture
KUO, C-C., WANG, S-P., and GRAYSTON J. T. (1972) J. infect. Dis., 125, 313

Reiter’s disease and allied conditions


Radiographic Pattern of Polyarthritis in Reiter’s Syndrome SHOLKOFF, S. D., GLICKMAN, M. G., and STEINBACH, H. L. (1971) Arthr. and Rheum., 14, 551 3 figs, 9 refs

Antibiotics and chemotherapy


Permeability of Ampicillin through the Hemato-Encephalic Barrier after its Administration by Various Routes POKROVSKAYA, N. Ya., and RURIKOVA, A. N. (1972) Antibiotiki, 17, 230


Public health and social aspects


In mass campaigns conducted under the auspices of the World Health Organization in 46 countries, some 160 million people have been examined and 50 million treated with penicillin as clinical cases of yaws or endemic syphilis, latent cases, or contacts. This important paper summarizes some of the experience gained. Campaigns have been based on initial treatment surveys followed by periodical surveillance surveys to assess progress. In general, results have been most successful when the initial population coverage was highest and was followed by a large number of surveillance surveys which included serological sampling. Thus, in Western Samoa, the incidence of clinically active yaws was reduced from an initial figure of 2.95 per cent. to 0.005 per cent. at the fifth survey; it was found to rise slightly during two subsequent surveys, showing that active disease was still being transmitted. This has also been the experience in campaigns in other areas. Examples are given of the value of analysis of serological reactivity in different age groups in the assessment of the impact of a campaign. Continued reactivity in sera from young children shows that the disease is still being transmitted, and the prevalence of high antibody levels, suggesting the potential for infectious relapse, may also have a predictive value. In some areas it has been noted that children born after mass treatment campaigns may have reactive TPI tests although without a history, or clinical or other evidence of treponemal disease; this raises the possibility that subclinical infections may occur. Both yaws and pintas give significant immunity against venereal syphilis. As a result of mass treatment campaigns, 60 to 70 per cent. of children reaching puberty in some areas are now potentially susceptible to infection with venereal syphilis as against 5 to 10 per cent. 20 years ago. This has led to the fear that the eradication of yaws may lead to the spread of syphilis into the area; the occurrence of venereal syphilis has been reported in rural areas of Western Samoa, Thailand, and New Guinea where yaws was previously endemic.

A. E. Wilkinson
[Reprinted from Abstracts on Hygiene, by permission of the Editor]

Retrospective Incidence of Venereal Diseases in Pakistan HOSSAIN, A. S. M. T. (1972) Medicus (Karachi), 43, 192


Miscellaneous


Since 1960 scabies has increased throughout the world. Usually epidemics of scabies occur during wars and the present increase is therefore
unusual. The authors prefer benzyl benzoate to other treatments but insist that all members of the family and all sexual contacts should be treated even in the absence of overt lesions. Factors which encourage the spread of scabies are mass movements of population, depression and promiscuity. It is thought that pruritus and papulovesicular lesions are due to allergic hypersensitivity as the small number of mites does not account for the extent of lesions seen. Post-scarbic pruritus and eosinophilia also support this view. One explanation for the present spread of scabies might be due to the previous low degree of infestation and absence of an immune response. This would fit in with the present spread of the infestation in children. Infestation does not lead to true immunity but is thought to produce a reactivity of the body giving rise to early symptoms when infected. G. W. Csonka

Torsion of the Testis and Its Appendages  

Prophylatic Treatment with Penicillin in Venereal Diseases  
in German] LUGER, A. (1971) Hautarzt, 22, 135

Behcet's Disease  

Genito-urinary Tuberculosis  

Cell-dependent Differences in the Production of Infectious Herpes Simplex Virus at a Supraoptimal Temperature  

Herpes Simplex Virus Infection in the Newborn  

Herpes Antibody and Cervical Carcinoma in situ  

Condylomata Acuminata  
(1972) Brit. med. J., 2, 179

Correction

In the paper by A. Forsgren, which appeared in the June issue of the journal (Brit. J. vener. Dis. (1972), 48, 205), in the Table on p. 205, col. 1, row 11, for 36°C, please read 56°C.