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).
Gonorrhoea.
Nongonococcal Urethritis and Allied Conditions.
Reiter's Disease and Allied Conditions.
Antibiotics and Chemotherapy.
Public Health and Social Aspects.
Miscellaneous.

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

Syphilis (Clinical)
Abnormal Chemoreceptor Response to Hypoxia in Patients with Tabes Dorsalis
[From the London Hospital, E.I.]
Nine patients with tabes dorsalis and one patient with diabetic autonomic neuropathy were subjected to hypoxia to test the integrity of their carotid chemoreceptors. Ventilation and pulse rate changes were monitored and compared with those of a group of normal subjects of comparable age and sex. Four patients had a completely negative response to hypoxia, and the changes in ventilation in the group of patients as a whole were significantly less than in the control subjects. The results indicate that some patients with autonomic denervation are unable to adjust their respiratory system in response to hypoxia.

Authors' summary

Acquired Syphilis in Children.
Report of Two Cases [in Polish]

Syphilis and Pregnancy
[in French]

Luetic Signs on the Human Skeleton [in German]
JUNG, H. (1971) Hautarzt, 22, 509

Sarcoid-like Granulomas in Secondary Syphilis

Differential Diagnosis of Virus Hepatitis and Early Hepatic Syphilis [in Polish]


Polyneuritis in the Course of Early Latent Syphilis [in Polish]

Case of Cerebral Gumma of Left Temporal Lobe [in Japanese]

Symmetrical Syphilitic Gumma of the Frontal Lobes. Case Report [in Italian]

Tabetic Arthropathies. Presentation of 26 Cases [in Italian]
FALZI, M. (1970) Fracastoro, 63, 888

Syphilis (Therapy)
Therapy for Incubating Syphilis
The epidemiological control of syphilis would be greatly enhanced if gonorrhoea therapy were simultaneously curative for incubating syphilis. In a co-operative study co-ordinated by the Center for Disease Control, schedules currently recommended by the Public Health Service for gonorrhoea treatment in the male and female (aqueous procaine penicillin G 2-4 and 4-8 million units, respectively) were evaluated in 127 patients exposed to infectious syphilis within a 30-day period. After a 3-month clinical and serological follow-up, these schedules were found to be 100 per cent. effective in aborting incubating syphilis. Of a control group of contacts treated with placebo who were exposed to infectious syphilis within 30 days preceding treatment, 30 per cent. developed syphilis. Consequently, aqueous procaine penicillin G in the dosage of 2-4 and 4-8 million units is curative therapy for patients with gonorrhoea with co-existing incubating syphilis.

[As the authors state this study would have achieved greater credibility if the period of follow-up had been longer.]

Authors' summary

Penicillin Therapy in Primary and Secondary Syphilis
SMITHURST, B. A. (1971)
Med. J. Aust., 2, 248 15 refs

Syphilis (Serology)
Structure of Treponemes; Demonstration of a New Lipoidal Hapten in the Reiter Treponeme. Study of Human Sera containing Antibodies reacting with This Hapten
(Structure antigénique des treponèmes; mise en évidence d'un nouvel haptène lipidique dans "Treponema reiteri"). Etude de sérums humains contenant des
Lipids constitute 20 per cent. of the dry weight of treponemes; they include cardiolipin and a galactodiglyceride. Some normal sera may contain antibodies which combine with these, giving false positive reactions in the Reiter protein complement-fixation test because of the presence of lipids in the antigen. The author has shown the presence of a further lipid, glycolipid 11, in extracts of the Reiter treponeme and the closely related Kazan V strain. This is thought to have D-mannose or D-glucose in its molecule and to constitute 1 per cent. of the dry weight of these organisms. Methods for its extraction are described.

93 human sera were tested. 28 came from patients with tuberculosis, one was reactive only in the Kolmer WR, and 64 were selected because they gave isolated positive reactions in the RCPFFT; none of these patients had any evidence of syphilis and TPI tests, when done, were negative. Sixteen of the sera gave weakly positive complement-fixation tests with glycolipid 11, and six were strongly positive; three of these last were also reactive with cardiolipin or galactodiglyceride or both. The possible significance of these findings for the use of the RCPFFT in practice is discussed.

A. E. Wilkinson

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

Studies on the FTA-ABS Test in Saliva of Syphilitics and in the Milk of Syphilitic Lactating Mothers [in Polish]

The FTA-ABS test was compared in the serum and saliva of 84 patients with syphilis in various stages. In a proportion the serum TPI test was also performed. The FTA-ABS reactions were very similar in serum and saliva. Thus, in thirteen primary seropositive cases, the saliva gave a positive reaction in twelve; in nineteen secondary syphilitics, the saliva was FTA-ABS positive in every case. In the later stages the proportion of salivary positive reactions was somewhat lower than serological reactions. In 57 non-syphilitic controls only two gave a positive salivary FTA-ABS reaction. In some of the FTA-ABS positive patients who were lactating, a positive FTA-ABS reaction was also found in the milk.

G. W. Csonka

Syphilis Reference Serology

Value of Autoantibodies to Vascular Lipids in Syphilis and Non-syphilis
STONE, O. J. (1971) Int. J. Derm., 10, 31

Results of the Nelson Test during Administration of Gentamicin [in German]

The Wassermann Reaction in Patients and Pregnant Women [in Russian]

Investigations into C-reactive Protein (CRP) in Sera of Patients with Early Acquired Syphilis [in Polish]

Automatic Indirect Immunofluorescence (AFTA) applied to Syphilis Serology [in French]

Further Evaluation of the Automated Fluorescent Treponemal Antibody Test for Syphilis

Relationship between Immobilizing Antibodies of Serum and Cerebrospinal Fluid [in German]

Syphilis (Biologic false positive phenomenon)
Familial Chronic Biologic False Positive Seroreactions for Syphilis. Report of Two Families, One with Three Generations Affected

In the first family, the grandfather, now aged 71, had shown positive tests for reagin and negative treponemal tests (RPCFT and FTA-ABS) for 11 years. His wife was seronegative. Their daughter, aged 58, also showed BFP reactions over 11 years; she also had a positive indirect Coombs test. Her two children had negative tests for reagin. The son of the original patient, now aged 41, was first found to have positive tests for reagin when aged 22; his spinal fluid was normal. Despite massive treatment with penicillin, his reagin tests remained positive and tended to increase in titre. Because treponemal tests were negative, these were thought to be BFP reactions. Apart from a history of a subdural haematoma, which was successfully drained, his health was good; he showed no evidence of congenital or acquired syphilis. Like his sister, he had a positive Coombs test. His wife was seronegative. Their daughter, aged 7, showed a BFP reaction, but apart from this she was perfectly healthy. This is thought to be the first report of BFP reactions spanning three generations.

In the second family, the father, now aged 51, had been treated for supposed syphilis when aged 26 because of positive reagin tests and a darkground negative penile lesion. Tests for reagin remained positive despite much treatment; as a subsequent FTA-ABS test was negative, these were thought to be chronic BFP reactions. His wife was seronegative, but two of their three children...
had positive reagin tests; Reiter protein complement-fixation tests were negative but specific treponemal tests were apparently not performed. Neither child showed any clinical evidence of congenital syphilis.

A. E. Wilkinson

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

Syphilis (Pathology)

Congenital Syphilis in the Newborn Infant: Clinical and Pathological Observations in Recent Cases


A marked decline has been noted in autopsied cases of congenital syphilis since the advent of penicillin therapy. Between 1910 and 1940, 274 cases underwent autopsy at the Johns Hopkins Hospital, but only 47 in the succeeding 30 years. Sixteen of the latter, aged 1 hour to 9 weeks, were born alive and the pathological changes in these are reviewed. Haemorrhage was the immediate cause of death in five of the seven infants who died in the first few days of life. The infants who lived longer showed marked failure to thrive, and five of them, as well as two neonates, died from overwhelming secondary bacterial infection. Severe hepatitis, alone, appeared to be responsible for death in several instances.

The basic pathological pattern continues to be interstitial inflammation and fibrosis, involving almost all the viscera. Sites with a high percentage of lesions are the liver, spleen, bone, kidney, pancreas, skin and mucous membranes, intestinal tract, and eyes. The intense pancreatitis and submucosal fibrosis and thickening in the intestinal tract are both unique and have not been described in any viral disease or other congenital condition. No instances of pneumonia alba were seen in the sixteen cases and a review of the lungs of almost 300 cases autopsied in the pre-penicillin era revealed only seven cases of this. Though found in the past, tissue necrosis simulating miliary gummata was not seen in the recent cases; however, the pancreatitis and intestinal lesions, when combined with bone alterations, form a pathognomic pattern permitting differentiation from erythroblastosis foetalis, congenital viral diseases, and toxoplasmosis.

P. Rodin

Lymphoblastic Transformation Reaction in Syphilis

(Le test de transformation lymphoblastique au cours de la syphilis)


Transformation reactions were performed on lymphocytes from the peripheral blood of 83 patients with syphilis at various stages and 43 patients with negative serological tests who were thought not to have syphilis. The antigen used was a saline suspension of the Nichols strain of Tr. pallidum. Tests were incubated for 4 days and lymphoblastic transformation was assessed from stained smears; a 4 per cent. difference in the proportion of transformed cells between cultures with and without antigen was considered significant. The test was found to be positive in four of six patients with primary, nine of eleven with secondary, and five of six with congenital syphilis, also in all of eighteen with cardiovascular or neurosyphilis, in all of thirty with latent syphilis, and in twelve patients with treated syphilis on whose sera the WR and TPI tests were negative. The stage of the disease at which these twelve patients were treated is not stated. Three of the 43 control group of patients gave positive results. Two of these three were sensitive to pencillin and one to ampicillin; these were thought to be cross-reactions to the cephalothin which was incorporated in the culture medium to prevent bacterial contamination.

The authors interpret their results as showing that delayed hypersensitivity is established very early in the course of syphilis, that it is maintained throughout the disease, persisting even in treated patients whose serological tests have become negative.

A. E. Wilkinson

Gonorrhoea

Oral Ampicillin in Uncomplicated Gonorrhoea. IV. Comparison of Pharmacological and Clinical Results

ERIKSSON, G. (1971) Acta dermat-venerol. (Stockh.), 51, 467 4 figs, 28 refs

[From the Department of Dermatology, Sodersjukhuset, Stockholm, Sweden]

As part of a project designed to investigate the efficacy of oral ampicillin in uncomplicated gonorrhoea, the absorption and excretion of the clinically used dosage forms of oral ampicillin and penicillin G injection were observed in 24 healthy volunteers (12 of each sex) who took part in the study carried out in a cross-over fashion. All conditions were as strictly standardized as possible, with the subjects taking the preparations in a fasting state. The following dosage forms were used: 2 g. ampicillin in a single oral dose; the same dose with 1 g. probenecid; 2 g. ampicillin divided into two doses at an interval of 5 hours—always in 0-5-g. tablets with 100 ml. water. Some of the volunteers were given 2 g. ampicillin with 250 ml. of water or as 5 per cent syrup. An intramuscular dose of 2-2 m.u. penicillin G (1 m.u. crystalline plus 1-2 m.u. procaine penicillin) was also tested. Antibiotic concentrations were determined by the cylinder plate method. Ampicillin plus probenecid gave serum concentrations (21-2 µg/ml.) approximately two or three times as high as the divided dosage, and twice as high as the single oral dose. Increase in the water intake or the use of a syrup did not improve the serum concentrations significantly. The penicillin G injection gave serum concentrations lower than with ampicillin plus probenecid, but higher than with the other dosage forms. The duration of penicillinaemia was considerably longer than with the oral ampicillin dosages. The pharmacological findings are compared with the clinical results, and required serum levels as well as the minimum duration of therapeutic levels are discussed.

Author’s summary
Rifampicin compared with Penicillin in the Treatment of Gonorrhoea
MALMBO, A.-S., MOLIN, L., and NYSTRÖM, B. (1971)
Chemotherapy, 16, 319

100 male and 100 female patients with uncomplicated gonorrhoea con-
formed by culture were treated with a single oral dose of 900 mg. rifam-
picin at the Karolinska Skukhuset, Stockholm. The results are compared with
those in the same numbers of patients who had been treated with a
single injection of 1 m.u. aqueous benzyl penicillin and 1.5 m.u. aqueous
proaine penicillin during the previous 4 months. The sensitivity of
gonococci isolated before treatment to penicillin and rifampicin was
determined by a disc method. Smears
and cultures were taken weekly for
2 to 3 weeks from the urethra in
males and from the urethra, cervix,
and rectum in females; only those
who completed this follow-up were included in the study.

There were seven treatment fail-
ures (3-5 per cent.) and eight re-
infections in the group treated with
penicillin. In those treated with rifampicin, there were 25 failures
(12.5 per cent.); rectal cultures were
positive in eight of the eleven failures in women. There were also nine re-
infections among these 200 patients. All except one of the strains of
gonococci isolated before treatment were sensitive to rifampicin in vitro
(MIC < 1 µg./ml.). But in eleven of the 25 failures, the gonococci isolated
at the first follow-up were resistant to rifampicin, nine completely so
and two having an MIC > 10 µg./ml.

One of the men who failed to respond to rifampicin infected a woman who
was not included in the study; she
was found to harbour a strain com-
pletely resistant to rifampicin.

Because of the low cure rate and the
very rapid development of resistance of gonococci to rifampicin, it is not
advised for the treatment of gonorrhoea.

A. E. Wilkinson

Lipopolysaccharides were extracted from three strains of gonococci by a
phenol-water method. Two strains, G1 and G36, had apparently been
recently isolated, and the third, G2, was an old stock strain. The extracts
were used to sensitize glutaraldehyde-
treated sheep red cells; suspensions
so prepared were stable at 4°C. for at
least 6 months. The sera tested came
from 50 male and 25 female patients
with gonorrhoea and from 50 blood
donors who served as a control group.
The haemagglutination test was per-
formed in plastic trays by adding 0-1 ml. 0-5 per cent. sensitized cells to
equal volumes of doubling dilutions of sera which had been previously
absorbed with sheep cells before testing. Dulbecco’s solution with
1 per cent normal rabbit serum was
used as a diluent. Tests were incu-
bated at 37°C. for 1 hour and over-
night at 4°C.

If the upper limit of normal was
taken as four times the geometric
mean titre of the control group of sera,
testants from strains G1, G2, and
G36 gave 2, 10 and 4 per cent positive
results with the normal sera. With
sera from infected males the com-
parable figures were 46, 33, and 60
per cent. and with sera from in-
fected females 84, 27, and 60 per cent.
The patients’ sera usually responded
to all three antigens but not to the
same degree. The frequency or dura-
tion of infection did not appear to
influence the antibody level.

A. E. Wilkinson

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Bacteriocins from Neisseria gonorrhoeae and their Possible Role in Epidemiological Studies

Inocula from freshly isolated strains of gonococci were seeded as a band
about 1 cm. wide across the centre of plates of Difco GC medium base
plus 2 per cent. defined supplement.
After 24 hours at 37°C. the growth
was scrapped off and the plate exposed
to chloroform vapour for 15 minutes.
After further exposure to the air to
remove traces of chloroform, the
prepared plates could be stored at
4°C. Indicator strains of gonococci
were streaked at right angles to the
track of the producer strain, and the
plates were incubated for 18 hours in
10 per cent. CO2 and examined for
inhibition of growth. Indicator strains
were suspended in 10 per cent. horse
serum and stored in liquid nitrogen
to prevent degradation.

With a set of six provisionally
chosen indicator strains, 75 out of
100 isolates of gonococci proved to be
typable; they gave thirteen patterns of
inhibition of the indicator strains and
these patterns were found to be re-
producible. No induction of bacteriocins was found after exposure of
gonococci to ultraviolet light or
mitomycin C. Tests for bacteriocin production on Columbia chocolate
blood agar gave weak and inconsistent
results.

A. E. Wilkinson

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Gonococcal Tonsillar Infection
BRO-JØRGENSEN, A., and
JENSEN, T. (1971)
Brit. med. J., 4, 660 8 refs

The patients consisted of 144 men
and 66 women suffering from uro-
-genital or rectal gonorrhoea seen at a
public clinic for venereal diseases in
Copenhagen. Gonococci proved by
fermentation reactions were found in
cultures from the tonsils of six out of
95 Danish men (6 per cent.) and
six out of 66 Danish women (9 per
cent.). The organism was found in
the throat of only one of 49 men from
other countries treated for gonorrhoea
in the same clinic. Tonsillar cultures
were negative in all of 186 men and
77 women not suffering from gonorr-
hoea. 80 per cent. of the men and
61 per cent. of the women admitted
orogenital contact, but this was more
commonly practised with the regular
consort rather than with casual
acquaintances. Eleven of the thirteen
patients with tonsillar infection had
practised orogenital contact at their
most recent intercourse.

Ten patients (5 men and 5 women)
with tonsillar involvement had no
symptoms or signs of this. Three
patients had mild to moderate signs
of tonsillitis, consisting of enlarged
tonsils with small yellow-white exu-
dates without regional lymph node
involvement or fever; one complained of sore throat starting 4 days after orogenital contact and the other two had slight discomfort on swallowing. The gonococcal complement-fixation test was negative in all except two cases.

All patients were initially treated with the standard single-dose therapy of 2 g. ampicillin and 1 g. probenecid by mouth. In five cases gonococci were still present in the tonsil after this treatment, although the urogenital infection was cured. The organism was isolated from the tonsils for up to 8 weeks.

P. Rodin

Gonococcal Tonsillitis after Orogenital Contact [in Swedish]
HALLOGREN, L. (1971) Svenska Lak-Tidn., 68, 569 6 refs

Of 200 patients treated for urogenital gonorrhoea at a clinic in Gothenberg, Sweden, fifty admitted to orogenital contact when they last had intercourse. Cultures for gonococci were taken from the tonsils of these fifty patients, of whom thirty were men and twenty women. One man and one woman had positive cultures, proved by fermentation reactions. He had a mild sore throat, which showed slight injection, but she had no symptoms. The genital infection responded to oral treatment with a single dose of 2.7 g. ampicillin plus 1 g. probenecid in one case and 1 g. ampicillin repeated after 5 hours in the other. However, the tonsillar infection persisted, but was eliminated with tetracycline in dosage of 250 mg. four times daily for 7 days.

P. Rodin

Gonococcal Arthritis

Antibiotic-resistant Gonococci

Results of Treatment of Gonorrhoea with Oxytetracycline
[in Polish]

Doxycycline in Acute Gonococcal Urethritis [in Italian]

Comparison between Cephaloridine and Penicillin in the Treatment of Gonorrhoea
MOLIN, L., and NYSTROM, B. (1970) Chemotherapy, 12, 384

Treatment of Gonorrhoea with Spectinomycin and Rifampicin

Effect of Double Dose of Aqueous Procaine Penicillin to Treat Gonorrhoea in Men

Evolution of the Sensitivity of the Gonococcus to Antibiotics (Third Study) [in French]

Gonorrhoea masked by Acne Vulgaris Treatment

Serological Tests for Gonorrhoea
Leading Article (1972) Brit. med. J., 1, 584

Microflocculation Assay for Gonococcal Antibody

Sensitivity and Reproducibility of Thayer-Martin Culture Medium in diagnosing Gonorrhoea in Women

Non-gonococcal urethritis and allied conditions
Study of Mycoplasma in University Students with Non-gonococcal Urethritis

653 specimens from 339 students (229 males and 110 females) attending the University of Wisconsin Health Service were tested. 250 complained of symptoms of urethritis or vaginal discharge; 89, who were symptom-free and undergoing routine health examinations, served as a control group.

Commercial PPLO agar and broth were used. For the isolation of T strains these were adjusted to pH 6-0 and supplemented with 10 per cent horse serum, 10 per cent yeast extract (later reduced to 1 per cent), penicillin, 1,000 units/ml., 0-05 per cent. urea, and 0-002 per cent. phenol red. Plates and tubes of broth were inoculated with swabs of secretion or urine and incubated at 30°C. If a colour change developed in the broth cultures, subsamples were made to solid medium. Similar media were used for the isolation of Mycoplasma hominis, but the pH was 8-0, urea was omitted, and thallium acetate was added. These were inoculated after and subcultures were made from the broth to solid medium after 2 to 3 and 7 days. M. hominis was identified by its colonial appearance and by a growth inhibition test.

T strain organisms were isolated from 132 of 193 symptomatic males (68 per cent.) and from nine of 36 males in the control group. Among the female students, 36 isolations were made from 57 presenting with symptoms (63 per cent.) and from nineteen of 53 (36 per cent.) in the control group. M. hominis was grown from 12-5 per cent. of the males with symptoms and from 11 per cent. of those without. For the female students the percentages were 33 per cent. and 4 per cent. respectively.

Paired specimens of urine and a urethral swab were examined concurrently for T strain organisms from 107 of the 339 students. The results agreed in 101 cases. The culture of urine alone is thus thought to be a valid procedure for epidemiological studies. Broth cultures were found to be more sensitive than the solid medium for primary isolation.

The authors think T strain mycoplasmas form part of the normal genital flora in the age group studied.
A quantitative comparison of the numbers present in patients with and without symptoms might help to decide if they have any significance as pathogens.

A. E. Wilkinson

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

New Method of Staining Trichomonas [in French]
FRANCESCHINI, P. (1971) Presse méd., 79, 486

Incidence of Trichomoniasis and Dysuria in Pregnant Women in Eastern Uganda

Diagnostic Importance of the Complement Test for the Demonstration of Trichomonas vaginalis Infections [in German]

Influence of Oral Contraception upon the Occurrence of Candida albicans in the Vagina

Anti-Candida Factors in Serum and their Inhibitors. I. Clinical and Laboratory Observations

II. Identification of a Candida-clumping Factor and the Influence of the Immune Response on the Morphology of Candida and on Anti-Candida Activity of Serum in Rabbits

Biochemical Effects of Nystatin on C. albicans

5-Fluorocytosine Treatment of Candida Infections of the Urinary Tract and Other Sites

Mycoplasm in Urine collected by Suprapubic Aspiration

Antibiotics and chemotherapy

Differing Patterns of Wheal and Flare Skin Reactivity in Patients Allergic to the Penicillins
[From The Department of Medicine, Mayo Clinic, Rochester, Minnesota]

The immediate wheal and flare skin test reactivity to major and minor antigenic determinants from penicillin G, ampicillin, and methicillin were compared in 240 patients. In 57 patients with positive skin tests to one or another of these drugs, a marked variability in the patterns of reactivity was noted. Among the major determinants, 24 patients reacted to only one drug, five to all three, and eight to two. Among the minor determinants, twenty patients reacted to only one drug, five to all three and nine to two. These results show that a positive skin test to one penicillin drug is not necessarily associated with positive reactions to all the penicillin drugs, indicating that skin test reagents to semisynthetic penicillins as well as to penicillin G may be useful.

Authors’ summary

Role of Penicilloyoxylysine in detecting Penicillin Allergy
[in Polish]
MACIEJOWSKA, E., Symposium of the 9th Polish Venereological Conference, Warsaw, 1971, p. 159

110 patients known to be hypersensitive to penicillin and 140 controls were skin-tested with crystalline penicillin (100 units) and penicilloyoxylysine (PPL). The former gave positive or weak positive results in 43.6 per cent. of the penicillin-sensitive subjects, the latter was positive in 72.5 per cent. of this group. The corresponding figures in the control group were 12.2 and 10.0 per cent. PPL is thus more specific and more sensitive than crystalline penicillin. In some of the cases indirect basophil degranulation and lymphocyte transformation was also performed but gave inferior results to skin testing with PPL.

G. W. Csonka

Routine Use of Penicillin Skin-Testing on an Inpatient Service

Allergy to Cephalosporins: A Study carried out using Skin Tests, the Shelley Test, and the Test for Lymphoblastic Transformation, with Reference to Penicillin Allergy [in French]

Incidence of Positive Immunological Reactions to Cephalexirin in Subjects Allergic to Penicillin, Studied with the Aid of the Lymphoblastic Transformation Test
[in French]

Skin Tests in Penicillin Allergy
[in German]
HELENENROICH, H., and LUCKERATH, F. (1971) Hautarzt, 22, 18

Public health and social aspects

Prophylactic Treatment of Venereal Diseases [in Polish]

The authors analysed 573 contacts of gonorrhoea or syphilis who had received prophylactic treatment in Warsaw since 1960. 362 were contacts of syphilis and received either benzathine penicillin (1-2 m.u. every 5th day for four doses) or 600,000
units procaine penicillin daily for 10 days; a few were given other antibiotics. Full follow-up was carried out and no clinical syphilis was observed. 211 contacts of gonorrhoea received 1:2–2:4 m.u. procaine penicillin, the higher dose being given to women. The results were excellent. It is concluded that this type of prophylaxis has reduced the incidence of infection and that over the years it has become more readily used and should be still more widely given.

G. W. Csonka


Miscellaneous

Differentiation between Type 1 and Type 2 Strains of Herpes Simplex Virus by an Indirect Immunofluorescent Technique GEDER, L., and SKINNER, G. R. B. (1971) J. gen. Virol., 12, 179 1 fig., 13 refs

A simple and rapid immunofluorescent method for typing strains of herpes simplex virus is described from the Virology Department of Birmingham Medical School.

The cytoplasmic membranes of cells infected with herpes simplex virus develop altered antigen specificities. Strain-specific differences in these surface antigens have been reported; these may be identified by an immunofluorescent technique using appropriately absorbed antisera.

Antisera were prepared in rabbits against Type 1 and Type 2 strains of herpes simplex virus. The antisera were absorbed with BHK cells, then one aliquot of each was absorbed with cells infected with Type 1 virus and another with Type 2 infected cells. Coverslip cultures of BHK cells were made and incubated for 12 hrs. They were inoculated with herpes virus preparations, which were allowed to absorb for 1 hr, after which the cells were washed with phosphate-buffered saline. The infected cells were incubated in growth medium for 5\(\frac{1}{2}\) hrs at 37°C. Tests for cell membrane fluorescence were made on unfixed preparations of the infected cells. Washed coverslip preparations were treated with one drop of anti-herpes serum and incubated at 37°C for 30 min. The cells were again washed and one drop of anti-rabbit gamma-globulin conjugate was applied for the same time. A similar technique was used for the detection of intracellular antigens, except that the cells were fixed in acetone before applying anti-herpes serum. The antibody titre of the antisera against the herpes-infected cells was determined.

The results showed that anti-herpes antisera absorbed with cells infected with heterotypic virus strains reacted type-specifically with the antigens on the surface of cells infected with herpes virus for 5\(\frac{1}{2}\) hrs. Less satisfactory discrimination resulted when intracellular antigens were demonstrated in fixed preparations, possibly because some common antigens are not represented at the surface. The results suggested that cell-membrane immunofluorescence with absorbed sera would be a reliable means of type differentiation. This was verified in a series of tests with eight freshly-isolated virus strains. The strains were typed by kinetic neutralization tests with standard antisera; the result in every case was clear-cut and showed complete agreement between the two methods. The indirect cell membrane immunofluorescent test has the advantage of simplicity and rapidity over other methods of typing. All the strains could be typed without finding any intermediate types.

G. Scrimgeour

Plasmocytosis Mucosae, an Oft-mistaken New Syndrome (Plasmocytosis mucosae—ein oft verkanntes neues Krankheitsbild) LUDERS, G. (1972) Münch. med. Wschr., 2, 87 figs, 12 refs

Plasma cell balanitis is characterized by a reddish-brown glistening flat lesion involving the glans penis and often showing 'kissing' lesions in the sulcus coronae. It has lately been shown that the lesion may also occur in the mucous membranes of the mouth and conjunctiva. The condition is benign and differs histologically from the erythroplasia of Queyrat. The infiltration consists mainly of plasma cells; these show marked pleomorphism and a great amount of haemosiderin which accounts for the reddish-brown colour. Recent immunohistological studies have shown the absence of an immune reactive vasculitis. It is believed that these plasmocytic hyperplastic lesions are due to one or several external local stimuli.

G. W. Csonka


Other Sexually Transmitted Diseases NICOL, C. S. (1971) Brit. med. J., 2, 448

The Sexually Transmitted Diseases NICOL, C. S. (1971) Practitioner, 206, 277


Differentiation of Herpes Simplex Virus Type 1 and 2 by Temperature Markers

Difference in the Properties of Thymidine Kinase produced in Cells infected with Type 1 and Type 2 Herpes Virus

Epithelial Lining of Female Trigone and Urethra

Frequency of Vaginal Infections as observed in Routine Laboratory Tests

Behçet's Syndrome
(Syndrome de Behçet)
Bast, C. De (1971) Arch. belges Derm., 27, 299

Balanitis Xerotica Obliterans and Urinary Obstruction
Abstracts

doi: 10.1136/sti.48.3.219

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