Abstracts

These selected abstracts and titles from the world literature are arranged in the following sections:

Syphilis and Other Treponematoses
( Clinical and Therapy; Serology and Biological False Positive Phenomenon; Pathology and Experimental)

Gonorrhea
( Clinical; Microbiology; Therapy)
Non-Specific Genital Infection
Reiter’s Disease

Syphilis and other treponematoses (Clinical and therapy)

Secondary Syphilis: a Clinico-pathological Review

A study of biopsy material from 57 patients with serologically confirmed secondary syphilis seen at St. John’s Hospital for Diseases of the Skin showed that a wide variety of histological change occurred. These changes were sufficiently characteristic, however, to draw the attention of the clinician on occasion to the possibility of unsuspected syphilis.

The epidermis was involved in more than 75 per cent. of all the biopsies. The commonest reaction was exocytosis, epidermal oedema being almost always associated with it. The perivascular inflammatory infiltrate extended deeply in the skin but plasma cells were not invariably present in it, being absent or inconspicuous in nearly 25 per cent. of the biopsies. The older the lesion the more granulomatous did this infiltrate become. While vasodilation was very common, significant vessel damage was infrequent. Swelling of endothelial cells was seen in 24 biopsies and endothelial proliferation in only three.

The authors discuss the differential diagnosis from pityriasis lichenoides and other inflammatory dermatoses and stress the value of histopathology in the diagnosis of secondary syphilis.

C. S. Ratnatunga

Isolation of Spirochetes in the Perilymph despite prior Antisyphilitic Therapy
WIET, R. J., and MILKO, D. A. (1975) Arch. Otolaryng., 101, 104

The authors report from Cincinnati the case history of a 42-year-old man, who had been treated twice previously for congenital syphilis at the ages of 15 and 20 (although details of treatment then are not given). On both occasions examination of the cerebrospinal fluid confirmed the diagnosis of neurosyphilis.

He presented on the present occasion with a 6-week history of tinnitus, headaches, unsteadiness, and hearing loss. He was found to have an Argyll Robertson pupil in the left eye and a high frequency sensorineural hearing loss, more severe in the right ear, with a hypoactive labyrinth. The hearing loss became worse over the subsequent month. Treatment was then commenced with 2-4 mega units benzathine penicillin weekly for 3 weeks and oral steroids. The latter were discontinued after 2 months owing to the onset of a peptic ulcer.

Despite treatment the hearing loss on the right ear grew worse and after 6 months the patient was re-admitted for labyrinthotomy. 3 μl perilymph were aspirated and examined by dark ground illumination and revealed organisms with the motility and morphology of T. pallidum. The perilymph sample was then air-dried and a fluoresceant antibody stain performed on it which again showed fluorescent treponemes. Treatment then commenced with 20 mega units benzylpenicillin intravenously for 7 days followed by 2-4 mega units long-acting penicillin weekly for 3 months and a further course of steroids. During a 3-month follow up the patient has reported an improvement in vertiginous symptoms but no improvement in hearing loss.

This is the first recorded case of the demonstration of motile treponemes in the perilymph (Mach and others (1969) reported finding treponemes in the temporal bone at autopsy (Arch. Otolaryng., 90, 11)).

G. D. Morrison

Syphilis (Serology and B.F.P. phenomenon)

Comparison between Sorbit and Reiter Sonicate in the Absorbed Fluorescent Treponemal Antibody Test

Some syphilitic sera still fluoresce with Reiter treponemes as the antigen after treatment with the sorbit used in the FTA-ABS test; this finding indicates incomplete removal of group Antitreponemal antibody. Levels of this antibody in normal sera have been studied in relation to the titration of sorbit for use in the test.

A comparison has been made of the results of FTA-ABS tests with sorbit and Reiter sonicate and the treponemal immobilization test on 1,141 selected problem sera. Results with the sonicate displayed closer agreement (60-9 per cent.) with those of the TPI test than did tests with sorbit (40-8 per cent.). The use of...
sonicate as the sorbing agent is thought to improve the performance of the FTA-ABS test without diminishing its sensitivity.

Authors' summary

The FTA-ABS (IgM) Test for Neonatal Congenital Syphilis: A Critical Review


As available reports on the fluorescent treponemal antibody-absorption (IgM) test [FTA-ABS (IgM)] for neonatal congenital syphilis are not standardized for clinical or laboratory criteria, evaluation of the test is problematic. The sensitivity of the test appears insufficient for use as a screening test. Since the false positive rate is 10 per cent., it may be a useful confirmatory test, particularly in differentiating passive transfer of maternal antibody from active disease. A false-negative rate that may exceed 35 per cent. in delayed-onset disease, however, makes the FTA-ABS (IgM) test unreliable for ruling out the presence of congenital syphilis.

At present there is no substitute for serial VDRL testing and careful clinical scrutiny. Data are insufficient for a full evaluation of the FTA-ABS (IgM) test, although it is clear that a well-defined study is highly warranted.

Authors' summary

Reappraisal of the Value of the IgM Fluorescent Treponemal Antibody Absorption Test in the Diagnosis of Congenital Syphilis


FTA-ABS tests with anti-immunoglobulin and monospecific anti-IgG and anti-IgM conjugates were performed on sera from three groups of Negro babies after dilution 1 in 5 in sorbent. In the test for IgM antibody, the sera were tested with doubling dilutions of conjugate from 1 in 10 to 1 in 80.

All three tests were negative on sera from twenty normal babies whose mothers were seronegative. 115 babies had clinical or x-ray evidence of congenital syphilis; in these, all the tests were positive. That for IgM antibody was positive in all with conjugate diluted 1 in 40, but in only 52 per cent. at the 1 in 80 dilution. Reactivity at a 1 in 40 dilution of conjugate was therefore accepted as diagnostic of infection. The mothers of a further 51 neonates were seropositive during or immediately after their pregnancies; 35 had been treated. In four babies the FTA tests were all negative; these children remained clinically and radiologically normal during the 9 weeks they were observed. 43 had reactive FTA and IgG-FTA tests, but that for IgM was negative with the 1 in 40 dilution of conjugate, although in 25 it was positive at a dilution of 1 in 10 and in eighteen at 1 in 20. IgM reactivity declined in these babies and only three were still reactive with 1 in 10 conjugate at 9 weeks. Sere from four babies were initially reactive with 1 in 40 conjugate; three of these developed signs of congenital syphilis and were treated, and the fourth became IgM-negative after 16 weeks.

The authors apparently regard these transient positive IgM tests with low dilutions of conjugate as being falsely positive. A longer observation of these untreated babies to make sure they had escaped infection would have been of value. The need for standardization of anti-IgM conjugates (and other reagents for this test) is rightly stressed. The recommendation that this should be done against a battery of neonatal syphilitic sera is impracticable for most laboratories. [This is the largest series of IgM-FTA tests on babies with neonatal syphilis so far reported.]

A. E. Wilkinson

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

False-Positive FTA-ABS in Pregnancy


An epidemiological study of serological tests for syphilis was carried out in a rural Jamaican community. Three different groups were studied:

1. A systematic household sample from a village;
2. A volunteer group from the same village;
3. All antenatal patients attending the clinics in the catchment area related to the local Health Centre.

VDRL, RPR, and FTA-ABS tests were performed on all groups, and it was found that, although the lowest rate of positivity to all of these tests was seen in the pregnant group (7 per cent.), nevertheless this group also showed the highest rate of positivity to the FTA-ABS test only (9.6 per cent.).

Of 200 antenatal women, fourteen were FTA-ABS reactive and VDRL negative. It was possible to follow only six of these women for one month or more post partum, but all then proved to be both VDRL and FTA-ABS negative. None of the sera reactive in the FTA-ABS test showed the abnormal beading associated with lupus erythematosus, but they did show a rise in alpha-2 globulin.

The authors conclude that pregnancy produces false positivity to the FTA-ABS test in at least 3 per cent. of cases, a higher rate than obtains with the VDRL. The FTA-ABS should not, therefore, be relied on as a specific test for differentiating true from false-positive serological tests in pregnancy.

J. D. H. Mahony

Syphilis (Pathology and experimental)

Intracellular Treponema pallidum in Cells of Syphilitic Lesions of the Uterine Cervix


The authors obtained a punch biopsy from an ulcer on the cervix of a female patient who had strongly positive VDRL, Kolmer, and FTA-ABS tests. This was processed and ultra-thin sections from it were examined under the electron microscope. The morphology of the organisms seen was identical to those in rabbit testes infected with Treponema pallidum. Measurement of the diameter of the organisms and of the axial filaments were in good accord with measurements reported by others. There are eight electron micrographs showing T. pallidum within vacuoles and also lying free in the cytoplasm of epithelial cells and fibroblasts, as well as being observed within the nucleoplasm of several cells. There is no mention as to whether the patient was ever treated.

G. D. Morrison
A Spectrum of Lymphocyte Responsiveness in Human Syphilis

The lymphocyte transformation test was used to assess cell-mediated immunity in 31 patients with syphilis. Lymphocytes from patients with seronegative primary syphilis showed a small response to the Nichols strain of *Treponema pallidum* which did not differ significantly from that of controls. By contrast, cells from patients with seropositive syphilis or from patients in the popular secondary stage showed marked stimulation, although those from patients in the macular secondary stage did not. Lymphocytes from patients receiving treatment with antibiotics gave an increased response.

Lymphocytes from patients with secondary syphilis did not give as high a response to purified protein derivative of tuberculin as did cells from either patients with primary syphilis or cells from control subjects. There were twelve patients with seropositive primary syphilis, and eleven with secondary syphilis of which eight had a macular rash.

D. J. M. Wright

Passive Transfer of Immunity to Experimental Syphilis in Rabbits by Immune Lymphocytes

Suspensions of cells from the popliteal lymph nodes of three groups of rabbits were prepared, adjusted to a density of $7 \times 10^9$ cells/ml, and injected intravenously into equal numbers of normal rabbits.

Group 1 comprised eight animals given cells from rabbits which had been immunized intravenously with a total dose of $12 \times 10^9$ non-viable *Treponema pallidum* over 7 weeks.

Group 2 included four animals which received cells from rabbits which had been infected with *T. pallidum* and cured with penicillin 3 months later.

Group 3 included six animals which received cells from normal rabbits and served as a control group.

The day after the injection of the cells all the rabbits were challenged by the intradermal inoculation of $10^4$ *T. pallidum* at each of four sites.

The Group 1 recipients developed lesions at eleven of 32 sites after a mean incubation period of 18-5 days. In Group 2 lesions appeared at eight of sixteen sites after a mean period of 18-8 days. In Group 3 lesions appeared at all of 24 sites after a mean period of 13-6 days. These results suggest that a transferable cell-mediated response had developed in the animals immunized against or infected with syphilis.

A. E. Wilkinson

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

Gonorrhoea (Clinical)
Spectrum of Gonococcal Arthritis. Evidence for Sequential Stages and Clinical Subgroups

The case-records of 84 patients with gonococcal arthritis were studied to determine whether sequential stages of disease or clinical subgroups existed in this condition. The patients were divided into four groups:

- **Group I** (Haematogenous) Seventeen patients of whom five had positive blood cultures for *N. gonorrhoea* while the other twelve had typical skin lesions of gonococcaemia with negative blood cultures.
- **Group II** (Transition) Four patients with positive synovial fluid cultures for *N. gonorrhoea* and skin lesions or positive blood cultures.
- **Group III** (Joint localization) Twenty patients with positive synovial fluid cultures for *N. gonorrhoea* but no skin lesions and negative blood cultures.
- **Group IV** (Suspected cases) 43 patients with a clinical picture of gonococcal arthritis but without skin lesions or positive blood or synovial fluid cultures.

Using an index of severity based on the criteria of temperature over 100°F, occurrence of chills, and blood leukocytosis >12,000/c.mm. it was found that patients with positive blood cultures were the most toxic. The eleven patients with polyarthritis in Group III were significantly more toxic than the nine with monoarthritis. Patients in Group I, particularly those with positive blood cultures, presented significantly earlier than patients in Group III, while those in Group II were intermediate. These findings support the concept of sequential stages and clinical subgroups in gonococcal arthritis.

No significant difference was found in the severity index between the proved and suspected cases of gonococcal arthritis. The same also applied to the cases of polyarthritis.

C. S. Ratnatunga

Severe Guillain-Barré Syndrome following Urethral Discharge with Cardiovascular and Ophthalmic Involvement

The authors report the case history of a male patient aged 23 years who developed a purulent urethral discharge with frequency and dysuria 1 week after intercourse; 3 weeks later he noticed backache, neck stiffness, paraesthesiae, and progressive limb weakness which necessitated his admission to hospital. A lumbar puncture showed the characteristic dissociation albumino-cytologic in the cerebrospinal fluid; the Guillain-Barré syndrome was diagnosed and treatment commenced with prednisolone 60 mg. daily. The patient was not treated for his urethral until after his admission to hospital, when a urethral smear showed Gram-negative diplococci present along with pus cells. A urethral culture for *N. gonorrhoea* was negative. He was treated(110,884),(885,969)
syndrome after a urethritis which was presumed to be gonococcal in origin, although this was not confirmed by culture.

G. D. Morrison


1 per cent. silver nitrate solution was instilled prophylactically into the eyes of 7,589 neonates, born at the Jewish Hospital and Medical Center of Brooklyn, during a 34-year period. The discharge from the eyes of any infant who subsequently developed conjunctivitis was examined after Gram-staining and cultured on a nutrient broth-agar butt and Thayer-Martin medium with trimethoprim (Transgrow). A diagnosis of gonococcal ophthalmia neonatorum, made on the basis of intracellular Gram-negative diplococci and typical colonies of gonococci on the Trans-grow medium, was established in eleven infants. A presumptive diagnosis was made in a further two on the Gram-stain evidence alone. Four of the mothers had been treated for gonorrhoea during their pregnancies. Nine of the thirteen were unmarried, and nine had received no antenatal care. Two had positive serological tests for syphilis.

All the diagnosed infants had been delivered vaginally, six being premature. They were treated with systemic aqueous penicillin, 50,000 u./kg./day in divided doses, for 5 to 7 days. All improved, and at follow-up after 1 month none showed evidence of corneal damage.

The authors comment on the correct use of silver nitrate. They recommend the use of individually prepared ampoules to reduce evaporation and concentration of the solution. Care should be taken to instil directly into the conjunctival sac, and the sac should not be flushed out with subsequent washing with water or saline; the latter may precipitate the silver cation as the chloride salt.

In antenatal patients, the authors found a 0·02 per cent. incidence of gonorrhoea by taking cervical and rectal swabs. They comment on this low incidence, and question their screening methods. They suggest more rigorous multiple site testing of antenatal patients, in particular 'high-risk' mothers, such as the unmarried and the drug addict. Screening may also be carried out on admission to hospital for delivery, particularly when there has been no antenatal care.

The authors advise that all eye discharges in neonates should be cultured on appropriate media for N. gonorrhoeae and examined after Gram-staining. All mothers should be asked to return to the hospital should their infant develop an eye discharge, so that it may be adequately investigated.

D. H. Jackson

Asymptomatic Urethral Gonorrhoea in Men

Retrospective Study of Gonorrhoea Incidence in an Urban Family Planning Clinic

Screening for Gonorrhoea

Gonorrhoea (Microbiology)

Immunological Heterogeneity of Pili of Neisseria gonorrhoeae

Immune electron microscopy provides visual evidence of antibody localization on particulate antigen. The authors, unable to prepare pure pili uncontaminated by free endotoxin, employed this technique to investigate the specificity of rabbit antisera for pili from 31 strains of N. gonorrhoeae, three of which were used to immunize the rabbits, both as pili preparations and as whole cell suspensions. Cross-reactions were few and at low titre, from which it is concluded that gonococcal pili are not immunologically homogeneous, in contrast to the report by Buchanan and others (1973), which was the basis of a serological radioimmunoassay test for asymptomatic gonorrhoea. Furthermore, serum obtained by hyperimmunization with non-pilated T3 cells reacted with homologous T2 strain pili, which supports a proposal that common pili are composed of cell wall components induced to this form under particular (mostly artificial) conditions. Reactions were also observed against the contaminating endotoxin blebs, including several cross-reactions independent of those against pili, but only if there was no visible surface structure, a superficial layer presumably being detachable.

Brian A. Evans

Disseminated Gonococcal Infections caused by Neisseria gonorrhoeae with Unique Nutritional Requirements.

The authors examine the growth requirements of N. gonorrhoeae in relation to penicillin sensitivity, inhibition by agar, and DGI (here meaning disseminated gonococcal infection, and not dark ground illumination). A previous paper from this group in Seattle reported that organisms isolated from DGI showed marked penicillin sensitivity (MIC less than 0·015 μg/ml.). In the present investigation it was found that these sensitive strains, whether from DGI or uncomplicated gonorrhoea, grew on chemically defined medium (NEDA) only if the agar used was methanol-extracted, or if serum was added. In addition, auxotyping by the method of Cario and Catlin showed them to require arginine, hypoxanthine, and uracil for growth. In Seattle, 89 per cent. of isolates from DGI and 38 per cent. of isolates from uncomplicated gonorrhoea were of this auxotype, compared with 18 per cent. in Milwaukee (DGI rate not stated), and none from isolates in the Philippines and Taiwan, where DGI was not found in 850 servicemen with gonorrhoea. Thus it would appear that the distribution of this gonococcal phenotype may determine the incidence of disseminated infection.

Brian A. Evans

Reference
Buchanan, T. M., Swanson, J., Holmes, K. K., Kraus, S. J., and Gotschlich, E. C., (1973) 'Quantitative determination of antibody to gonococcal pili.' J. clin. Invest., 52, 2896

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The authors report the effect of electrolytic copper wire and discs, and the Gravigard intracutaneous contraceptive device (IUCD), on the growth of N. gonorrhoeae in vitro. Plates of Kellogg’s typing medium, streaked with gonococci from a male patient with proven gonorrhoea, were incubated at 37°C in an atmosphere of increased CO₂ for 48 hours, strips of copper wire and copper discs and the IUCD being placed on the surface. All three inhibited the growth of the organism. There was a zone of inhibition measuring approximately 2 mm. on each side of the IUCD. D. H. Jackson


The recovery of N. gonorrhoeae from clinical material was compared using New York City (NYC) transport medium, Trans-grow, and Amies charcoal medium. The nutrient transport media were modified by replacing vancomycin by lincomycin (4 μg/ml) and increasing the concentration of trimethoprim to 5 μg/ml. The benefit of CO₂ on the survival of N. gonorrhoeae in NYC transport medium was doubtful. Nevertheless, all transport media were incubated in CO₂ derived from a chemical source.

It is suggested that NYC transport medium gave better recovery rates for N. gonorrhoeae at 48 hrs than Trans-grow medium, supported by the finding of ten and four isolates respectively as compared with twelve isolates found on immediate routine culture on NYC isolation medium. Similarly, when NYC transport medium was compared with Amies charcoal medium at 48 hrs, 37 and 29 isolates were obtained as compared with 41 obtained by immediate routine culture. No advantage over the other transport media was demonstrated when NYC medium was used after storage for either 24 or 72 hrs.

D. J. M. Wright


The strains of N. gonorrhoeae used in this study were obtained from the Walter Reed Army Institute of Research, Washington D.C. These were classified as sensitive, moderately resistant, and resistant depending on whether their minimum inhibitory concentration (MIC) of penicillin was 0-008, up to 0-25, or up to 2-0 μg/ml respectively. Fifteen of these organisms, together with four sensitive strains rendered resistant by passage in the drug, were first shown not to inactivate penicillin by either beta-lactamase or amidase production. Experiments were then done using labelled penicillin which showed that highly sensitive strains bound far more [14C] penicillin (3,200 to 3,800 molecules/cell) than did more resistant strains (530 to 1,500 molecules/cell), though there was no correlation between degree of resistance and amount bound. Further experiments were done to prove the specificity of this binding. It was shown first that there was little difference between the amount of [14C] benzyl penicilloic acid bound by a sensitive and a resistant strain (390 and 400 molecules/cell respectively). Secondly, when cytoplasmic membrane preparations were exposed to [14C] penicillin, there was again an inverse relationship between MIC and penicillin bound. Cell walls bound the antibiotic minimally. It is concluded that the results ‘indicate a correlation which points to the possibility of a permeability or exclusion barrier, as measured by changes in the binding sites for a possible mechanism of decreased susceptibility to penicillin of N. gonorrhoeae’.

P. M. Waterworth


Gonorrhoea (Therapy)


The authors set out to assess the value of short-term high-dosage antibiotic therapy for disseminated gonococcal infection (DGI). The diagnosis was considered definite when cultures of blood or joint fluid were positive for N. gonorrhoeae or Gram-stains of joint fluid or impression smears from skin lesions revealed Gram-negative diplococci. The probable category comprised patients with a characteristic clinical syndrome, a positive culture for N. gonorrhoeae from a primary site, and an appropriate response to antibiotic therapy. Patients with a characteristic clinical syndrome, typical response to antibiotic therapy, but negative cultures, were classified as possible D.G.I. if no other cause for the syndrome could be found.

D.G.I. was diagnosed in 28 patients (six men and 22 women): eight definite, thirteen probable, and seven possible. Treatment consisted of aqueous crystalline penicillin G, administered in doses of 2.5 m.u. intravenously over 30-min. periods every 6 hrs for 3 days. Two patients with a history of penicillin sensitivity were given erythromycin gluclenate 500 mg. intravenously every 6 hrs for 3 days. All patients had improved considerably by the end of this time, and in most of them the infection had resolved completely. Those who were not cured continued to progress without further treatment, and bacteriological as well as symptomatic cure was achieved in all those who were available for follow-up.

The authors concluded that short-term therapy of D.G.I. is effective.

M. A. E. Symonds


Non-specific genital infection


Chlamydia trachomatis was isolated from the urethra from 48 (42 per cent.) of 113 men with non-gonococcal urethritis (NGU), four (7 per cent.) of 58 without overt urethritis, and thirteen (19 per cent.) of 69 with gonorrhoea. Postgonococcal urethritis (PGU) developed in all of eleven men who had C. trachomatis. In nine of seventeen culture-positive seronegative patients with NGU or PGU, serum antibody to C. trachomatis developed. The immunotype specificity of chlamydial antibody corresponded to the immunotype isolated. Among culture-negative patients, chlamydial antibody prevalence correlated with the number of past sex partners and with previous NGU. Herpesvirus hominis, cytomegalovirus, T. mycoplasma, Mycoplasma hominis, other bacteria, and Trichomonas vaginalis were not implicated in NGU or PGU. Thus, the cause of chlamydial-negative NGU and PGU remains obscure. Endocervical Chlamydia were found in sex partners of fifteen of 22 NGU patients with and two of 24 without urethral chlamydial infection (P < 0.001). Tetracycline treatment of both sex partners appears to be advisable.

Authors’ summary


Cervical biopsy specimens from two patients with infections caused by Chlamydia trachomatis (TRIC agent) were studied by means of light and electron microscopy. Intraepithelial vesicles containing C. trachomatis were present in the cervical mucosa. These intramucosal vesicles were readily recognized in paraffin sections by means of light microscopy. The developmental stages of C. trachomatis, which have previously been
seen in tissue cell culture, chicken embryo, and conjunctival infections, were also apparent in cervical infection.  

Authors’ summary


Eleven mammalian cell lines, HeLa 229, HeLa M, Hep-2, FT, BHK-21, Vero, MK-2, MPK, L-WO5A2, McCoy, and L-929, were tested for their susceptibility to infection with trachoma strains TW-3 (type C, ocular origin) and UW-5 (type E, genital origin). All the cell layers were pretreated with diethylaminoethyl-dextran before inoculation of the organisms, and the inocula were centrifuged on the cell layers. HeLa 229 was found to be the most sensitive to infection as determined by inclusion counts. The next most susceptible were cell lines MK-2, Hep-2, McCoy, and HeLa M, in that order. Infectivity in these cells ranged from 89 to 12 per cent. of that observed in HeLa 229. The remaining cell lines, BHK-21, L-WO5A2, L-929, Vero, MPK, and FT, were much less susceptible with infectivity less than 10 per cent. that of HeLa 229. HeLa 229 cells and 5-iodo-2'-deoxyuridine pretreated McCoy cells have been used most extensively in our laboratories in differentiating points with trachoma organisms. Infection in these two cell culture systems, both pretreated with diethylaminoethyl-dextran, was compared using trachoma strains of both ocular and genital origins of different immunotypes. The two systems performed similarly except with two type C, three type I, and one type J strains. With the type C, I, and J strains tested, considerably fewer inclusions were found in 5-iodo-2'-deoxyuridine-pretreated McCoy than in HeLa 229 because inclusion formation of these strains in McCoy cells was not enhanced by 5-iodo-2'-deoxyuridine pretreatment.  

Authors’ summary


Trichomononiasis


Candidosis


Herpes


To the three clinical categories of herpes virus infection of the mouth (vzis. gingivo-stomatitis or primary infection, herpes labialis or cold sore, and herpes oralis, the type seen mainly by dentists), another clinical variety termed herpetic angina is added. The diagnostic features of this type are the appearance of small ulcers on the faucial pillars and soft palate and the symptoms of ‘sore throat without a cold’.

Concurrent oral and genital lesions appeared as the initial episode in three women who were treated oro-genital intercourse and herpes virus was isolated in all three patients from both sites, Type 2 virus from two patients and Type 1 virus from the third. Two of the three male consorts gave a history of recurrent genital herpes.

The distinguishing features of the three clinical varieties of herpes virus infection are discussed and the differentiating points between herpes oralis and aphthous ulceration given. Herpetic angina has to be distinguished from herpangina. The latter is caused by Herpes simplex virus and occurs mostly in small children presenting with sudden onset of fever and sore throat; the eruption is also more diffuse in distribution and the illness does not usually recur.  

Neville Durham


Comparison of Neutralizing and Immunoprecipitating Activity in Guinea-Pig Antisera against Herpes Simplex Virus Types 1 and 2 JEANSSON, S., and VESTERGAARD, B. F. (1975) Acta path. microbiol. scand., 83, 345


Inhibition of *Herpesvirus hominis* Replication by Human Interferon RASMUSSEN, L., and FARLEY, L. B. (1975) *Infect. and Immun.* 12, 104

Other sexually-transmitted diseases


36 patients having granuloma inguinale were treated at the 483 USAF Hospital, Cam Ranh Bay, Republic of South Vietnam, between October, 1970, and September, 1971. In 24 cases, biopsies of the genital ulcerations revealed Donovan bodies pathognomonic for the disorder. The lesions generally did not heal during tetracycline therapy. All but two of the 31 cases treated initially with ampicillin responded with complete healing of the local lesions which occurred primarily on the penis or in the groin.

Of the remaining two patients, one responded to a second course of ampicillin and the other to a 2-week course of lincomycin after dorsal slit had been performed for partial phimosis and balanoposthitis. The five patients who were allergic to penicillin were treated primarily with lincomycin and all responded with complete healing. No previous reference could be found in the literature to the successful use of lincomycin in patients with granuloma inguinale. Further clinical trials with this medication are indicated.

Authors' summary


Public health and social aspects

Promiscuity and Infertility BRIT. med. f. (1975) 3, 501 (Leader)


Establishment of a University-Based Venereal Disease Clinic. I. Description of the Clinic and Its Population DANS, P. E. (1975) *J. Amer. venere. Dis. Ass.*, 1, 70


Miscellaneous


The lower genital tract of 280 pregnant women was studied in detail, and symptoms relevant to its morbidity were elicited and recorded. The study was contemporaneous with a study of microbial flora and the genital tract of these women (de Louvois and others, 1975).

Complaint was made most frequently of discharge (42 per cent.), irritation (15 per cent.), or both (11 per cent.). Apart from these symptoms, 14 per cent admitted a past history of vulvo-vaginitis which emphasizes the importance of this condition in obstetric and gynaecological practice. The notorious discrepancy between the complaint and the objective demonstration of discharge was confirmed, but a significant difference in observations, varying with the clinical observer (P < 0.001), was also demonstrated. This illustrates the necessity of even more accurate grading of signs when clinicopathological correlations are to be attempted. Only 30 per cent. of women had no evidence of vulvo-vaginitis or cervicitis. Morbidity did not relate to age, gestation, or parity, but there was a significant correlation between clinical acumen, as evidenced by a request for a microbiological report with a view to treatment, and morbidity (P < 0.001), between past vulvo-vaginitis and present morbidity (P < 0.01), and between cervicitis and the presence of pus cells in the smear (P < 0.001).

The results indicate that microbiological investigations should be requested when there is past history of vulvo-vaginitis, and that lesions of the cervix, if not already noted, should be suspected if pus cells are demonstrable in stained smears.

Authors' summary


Nineteen genera and groups of microorganisms were isolated from the
lower genital tract of 280 women at their first antenatal visit. *Chlamydia*, viruses, and T-strain mycoplasmas were not sought, and only routine methods of anaerobic culture were used. Growth was recorded as scanty, moderate, or heavy. The population studied was grouped according to age, parity, gestational stage at booking, presence and degree of severity of lower genital tract morbidity, past history of vulvo-vaginitis, and suspicion of lower genital tract as evidenced by a request for a report on microbiological findings. The frequency of isolation of the various microbes in health and in disease is given.

The grading of Gram-stained smears bore no relation to the isolation rates of lactobacilli, but there was a significant increase (P < 0.001) in the isolation rates of each of the following: *Mycoplasma hominis*, *Bacteroides* spp., *Trichomonas vaginalis*, Gram-variable cocco-bacilli, and anaerobic streptococci in those patients with smears in which lactobacilli were adjudged to be absent.

The isolation of faecal streptococci was increased (P < 0.001) in women aged more than 34 years. *Escherichia coli* (P < 0.05) and anaerobic and microaerophilic streptococci (P > 0.02) were isolated more frequently from those booking after the 25th week of pregnancy. The incidence of *M. hominis* (P < 0.02) and of anaerobic streptococci (P < 0.05) increased between the first and third trimesters.

No significant positive correlations were established between the isolation rates of the various microbes and objective assessment of lower genital tract morbidity or the demonstration of pus cells, but lactobacilli were isolated less frequently (P < 0.01) from those with morbidity. The isolation of *Candida albicans* (P < 0.02), *T. vaginalis* (P < 0.05), and *M. hominis* (P < 0.05) was increased in patients in whom vulvovaginitis was suspected, and that of *T. vaginalis* (P < 0.05) was increased in those with a past history of vulvovaginitis.

The study indicates that, other than the pathogens *T. vaginalis* and *C. albicans*, only *M. hominis* could be suspected, on statistical grounds, of being associated with disease of the lower genital tract during early pregnancy.

**Authors' summary**

**Peyronie's Disease**

**Chesney, J.** *(1975) Brit. J. Urol., 47, 2 *

In this paper from St. Peter's Hospital, London, the author analyses a personal series of 250 cases of Peyronie's disease and reports on the effects of procarbazine in 24 patients. In his analysis he groups patients by age, duration of symptoms, number of plaques, and the presence of calcification. The advantage of xeroradiography over conventional x-ray techniques as a diagnostic aid is emphasized. A history of trauma was given by five patients, and five patients underwent surgery and thus provided material for histology. The author mentions the concept of autoimmunity with respect to connective tissue disease and tabulates the patients with associated fibrotic conditions. Before recording the results of treatment with procarbazine, he describes other treatments prescribed in the series: local corticosteroid injections with added hyaluronidase, oral vitamin E, prednisolone, methyl-testosterone, gonadotropin, and nicotinic acid, either alone or in various combinations. Results are analysed.

Procarbazine, a mono-amine oxidase inhibitor and cytotoxic drug, was given with the usual dietary restrictions and haematological precautions in doses of 50 mg. twice daily to 24 out-patients. Regular blood counts were performed, and a white blood count of less than 3,000/cu. mm. and platelet counts of less than 100,000 cu. mm. were considered indications for stopping treatment. Nausea, vomiting, and headaches were alleviated by metoclopramide mono-hydrochloride 10 mg. three times a day.

Of the 24 patients treated, results were available for eighteen, the remainder having discontinued treatment or defaulted. Of these eighteen, eleven showed good results, three partial improvement, and four no improvement. Improvement was usually noticed in 4 to 6 weeks; apparently plaques still remained at the end of treatment, although they were smaller, but deviation progressively diminished and normal sex life could be resumed. The author concludes that treatment with procarbazine is worth while in selected cases and with appropriate precautions.

**David Beckingham**

**Treatment of Peyronie's Disease with Procarbazine**


This is a somewhat discouraging report, from the University Hospital, Ghent, Belgium, of the treatment of Peyronie's disease with procarbazine. Having described the dangers, the authors tabulate the results of treatment in eleven patients whose ages ranged from 41 to 66 years and duration of symptoms from 5 days to 3 years, together with side-effects. They claim only one cure in a patient in whom the diagnosis was in doubt. In view of their disappointing results they have abandoned this treatment.

**David Beckingham**

**Anaerobic Infections of the Female Genital Tract**


Many gynaecological and obstetric infections are due to a mixture of aerobic and anaerobic organisms and the role of any single organism is difficult to establish. Newer bacteriological techniques which are discussed allow a higher identification rate of anaerobes. These organisms, which include Bacteroides and *Clostridia*, are part of the normal female genital microflora but have been recovered from a variety of pelvic infections. They are commonly isolated from the endocervix. All these organisms except Bacteroides are highly sensitive to penicillin; Bacteroides are usually susceptible to clindamycin, which should be reserved for this infection.

**G. W. Csomka**

**Susceptibility to Persistence of Australia Antigen**


**Hepatitis B (Surface) Antigen in Mothers and their Infants**


**Problem-Oriented Approach to the Venereal Disease Clinic Patient**

**Dans, P. E., Klaus, B., and Owen, M.** *(1975) J. Amer. vener. Dis. Ass., 1, 158 *