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)
Gonorrhoea
(Clinical; microbiology; therapy)

Syphilis and other treponematoses (Clinical and therapy)

Secondary syphilis revealed by rheumatic complaints

Six patients (five men and one woman) are described, who consulted rheumatologists with varied rheumatic complaints. Four patients had subacute synovitis with effusion, frequently associated with vague arthralgias, and five had back pain which was more severe at rest. Most of the patients had some clinical signs of secondary syphilis, such as roseola, loss of hair, or lymphadenopathy, and the results of their serological tests for syphilis were strongly positive. As no other cause for these rheumatic complaints could be found, secondary syphilis was considered responsible for them. In all cases the rheumatic complaints cleared with specific treatment.

Authors' summary

Syphilis in Australian aborigines in the Northern Territory

Syphilis (Pathology and experimental)

Anabolic potential of virulent Treponema pallidum

Selective in vitro response to thymus-deprived lymphocytes from Treponema pallidum-infected rabbits
C. S. Pavia, J. D. Folds, and J. B. Baseman (1977). Infection and Immunity, 18, 603–611

Gonorrhoea (Clinical)

Gonorrhoea in women: Diagnostic, clinical and laboratory aspects

Examination of the case notes of all women seen at a large metropolitan clinic during 1976 showed 607 episodes of gonorrhoea (92.3% of all such cases seen in the hospital), of which three were in prepubertal girls. Gonorrhoea occurred more often and at an earlier age in Negroids than in Caucasians. In about 30% of patients gonococci could be found in only one of the sites tested (cervix 18%, urethra 6%, rectum 4.8%, and throat 1.5%). Microscopical examination of Gram-stained cervical and rectal samples was of value, but that of urethral samples made no significant contribution to the diagnosis. Of the gonococcal isolates 31% showed diminished sensitivity to penicillin, but none showed significant resistance to spectinomycin, kanamycin, or sulphamethoxazole. The complication rate was lower than that reported from the United States. Overall, 40% of patients were symptom-free. The presence of other infection significantly increased the probability of a patient with gonorrhoea having symptoms. ‘Epidemiological’ treatment would have led to the unnecessary treatment of 142 female patients and would have included only four of 16 patients with gonorrhoea who defaulted before treatment could be given.

Authors' summary

Gonococcal perihepatitis in a female adolescent

Gonococcal proctitis in a married woman

The incidence of gonorrhoea in urban Rhodesian black women

Containing gonorrhoea epidemic

Gonorrhoea (Microbiology)

Simple method for distinguishing gonococcal colony types

A new procedure for the identification of gonococcal colony types is described, which employs a dissecting microscope with a fluorescent lamp and concave mirror, critical adjustment of which produces a darkfield effect. This could be of use to anyone who wants to distinguish gonococcal colony types.

Brian Evans
Growth on Congo red agar: possible means of identifying penicillin-resistant non-penicillinase-producing gonococci.


A standard growth medium (GC medium base plus 1% defined supplement) containing 0·01% Congo red dye was found to support the growth of gonococci only if the penicillin minimal inhibitory concentration (MIC) was 0·5 μg/ml or greater. Penicillinase-producing organisms and organisms more sensitive to penicillin did not grow. In an earlier paper, the authors had reported that meningococci formed red colonies on an agar medium containing Congo red, whereas gonococci failed to grow. These observations are of potential value in the rapid identification of penicillin-resistant gonococci, unless they produce penicillinase.

Brian Evans

Trends and seasonality of antibiotic resistance of Neisseria gonorrhoeae


An overall increase in sensitivity to penicillin G, ampicillin, tetracycline, and spectinomycin is reported for pretreatment gonococcal isolates in the United States between 1972 and 1975. This reverses the trend towards greater resistance to penicillin and tetracycline recorded between 1955 and 1970. Furthermore, resistance to penicillin and tetracycline proved highest in the winter months when the incidence of gonorrhoea was lowest, which the authors suggest may be due to increased general usage of antibiotics removing the more sensitive strains fortuitously.

Brian Evans

Studies on gonococcus infection. XII. Color colony and opacity variants of gonococci.


Studies on gonococcus infection. XIII. Occurrence of color/opacity colonial variants in clinical cultures.


Acrylamide gel electrophoresis of proteins of Neisseria gonorrhoeae as an epidemiological tool.


Antigonoococal IgA in gonorrhoea.


Cell envelope of Neisseria gonorrhoeae: penicillin enhancement of peptidoglycan hydrolysis.


Sensitivity of gonococci to penicillin G in the Canton of Berne, 1972–1977


Non-specific genital infection

Chlamydia trachomatis infection and venereal disease.


Chlamydia trachomatis was isolated by the irradiated McCoy cell technique from 44 out of 103 men with nongonococcal urethritis and from 11 out of 15 patients with postgonococcal urethritis. In women attending the venereal diseases clinics, chlamydial infection was observed in 49 (38%) out of 130 patients, an infection incidence of the same order of magnitude as the one noted for gonococcal infection (40%). In 19% both infections occurred simultaneously. Treatment with tetracycline eliminated symptoms and chlamydial infection in almost all cases. The significance of the findings is discussed.

Authors’ summary

Chlamydia trachomatis as a cause of acute idiopathic epididymitis.


To assess the aetiological role of Chlamydia trachomatis and other microorganisms in ‘idiopathic’ epididymitis, 23 men underwent microbiological studies, including cultures of epididymal aspirates in 16. Eleven of 13 men under the age of 35 years had Chlamydia trachomatis infection whereas eight of 10 over 35 had coliform urinary tract infection. Cultures of epididymal aspirates yielded C. trachomatis alone in five of six men under 35, and coliform bacteria alone in five of 10 over 35. These results suggest that C. trachomatis is the major cause of ‘idiopathic’ epididymitis, and coliform bacteria the major cause of epididymitis in older men. Expressible urethral discharge and inguinal pain were more common in the chlamydial cases, whereas concurrent genitourinary abnormality and scrotal oedema and erythema occurred more commonly in the coliform cases. The morbidity attributable to C. trachomatis is as severe as that attributable to Neisseria gonorrhoeae.

Authors’ summary

Chlamydial pharyngitis.


Among 118 women who were sexual contacts of men with nongonococcal urethritis, the practice of fellatio correlated with symptoms of a sore throat. Oropharyngeal cultures for Chlamydia trachomatis were negative in all women, including 11 women who practised fellatio and whose partners were known to have nongonococcal urethritis due to C. trachomatis. The study does not support a major role for C. trachomatis as a cause of sore throat in women who practise fellatio.

Authors’ summary

Chlamydia trachomatis infant pneumonia.


We determined the prevalence of Chlamydia trachomatis infection in 30 consecutive hospitalised infants less than six months of age with pneumonia and in 28 matched controls (nine of 30 compared with one of 28, p<0·05). In comparing 16 cases of pneumonia due to C. trachomatis with 27 not due to
that agent, we found several distinguishing clinical and laboratory features: C. trachomatis was highly correlated with radiographic hyperinflation, prolonged cough, and congestion; more than 400 eosinophils/mm³, and serum IgG greater than 500 mg/dl and IgM greater than 110 mg/dl. C. trachomatis was responsible for 13 of 21 cases seen at 3–11 weeks compared with three of 22 seen at other ages. Antibody to C. trachomatis in tears (13 of 14 compared with two of 27), nasopharynx (12 of 14 compared with one of 27) and blood (16 of 16 compared with two of 23) was specific for C. trachomatis pneumonia.

C. trachomatis is prevalent among hospitalised infants with pneumonia. Conjunctival infection precedes C. trachomatis pneumonia more commonly than has previously been thought.

Authors' summary

Isolation of chlamydiae in untreated and
cytocasalin B treated McCoy cells
J. J. O’Neill, B. M. McLean, and
M. H. Hambling (1978). Journal of
Clinical Pathology, 31, 183–184

A comparison was made between un-
treated McCoy cells and McCoy cells
with cytocasalin B for the
isolation of chlamydiae of subgroup A.
Chlamydiae were isolated in both cell
systems from 125 specimens, whereas six
agents were isolated only in untreated
cultures, and seven agents were isolated
only in cytocasalin B treated cultures.

Authors' summary

Antichlamydial antibody in genital
exudates of men and women with
non-gonococcal genital infections
K. M. Ng, D. M. Graham, J. R. L. Forsyth,

The role of antibody estimation in
chlamydial infections is controversial.
This letter reports the findings of a study
to compare chlamydial isolation with
single estimations of antichlamydial anti-
bodies in the discharges of men and
women with genital infections. In the
men, duplicate alginate urethral swabs
were taken. One was cultured on HeLa
229 cell monolayers for chlamydial
isolation, and the other placed in phos-
phate buffer; after shaking with glass
beads, the supernatant was titred for
immunofluorescent antibody against
standard serotypes of C. trachomatis.

C. trachomatis was isolated from 27% of
the male population studied. In 64%
of these, specific antibody, matching the
serotype of the isolate, was detected (the
titres are not stated). Antibodies to
genital isolates were also detected in 17% of
C. trachomatis negative men, with
some overlap to more than one serotype of
C. trachomatis. Of five women investi-
gated, three yielded antichlamydial anti-
body, but no isolates were obtained after
attempted culture. Clearly further study
is required to establish the place of this
work in the routine diagnosis of chlamy-
dial genital infection. Results obtained on
a single estimation of antibody to C.
trachomatis may merely reflect current
infection in the absence of a specific isolate of
C. trachomatis. The absence of antibody
may merely reflect the acute nature of the
infection.

G. L. Ridgway

Antibiotic susceptibility of Chlamydia
trachomatis
H. J. Blackman, C. Yoneda,
Antimicrobial Agents and Chemotherapy,
12, 673–677

The antibiotic susceptibility of Chlamydia
trachomatis isolates was determined in a
tissue culture system. Representatives of
all currently recognised serotypes of
trachoma-inclusion conjunctivitis agents
were tested. Tetracycline and erythromycin
yielded similar results, with 1:0
µg/ml preventing chlamydial replication.
Rifampin was the most active antibiotic,
with 0.25 µg/ml completely suppressing
inclusion formation of all strains. Fifty
per cent end points were usually achieved
at one-fourth to one-eighth of the
suppression level. Penicillin was not as
effective, and the assays were often
irregular. Antibiotic susceptibility of
these chlamydiae was essentially the same,
regardless of serotype, anatomical site infected, geographic origin, or anti-
biotic use in the community.

Authors' summary

The incidence of tetracycline-resistant
strains of ureaplasma urealyticum
R. T. Evans and D. Taylor-Robinson
Chemotherapy, 4, 57–63

Ureaplasma strains isolated from the
urethras of men with non-gonococcal
urethritis were investigated for decreased
sensitivity to oxytetracycline and mino-
cycline. Of the 141 strains isolated, 14
(9.9%) were deemed resistant. The
strains were found to belong to most of
the known serotypes. Resistance was
defined as a minimal inhibitory concen-
tration of equal to or greater than 0.6
µg/ml to oxytetracycline, and equal to or
greater than 0.16 µg/ml to minocycline.
Attempts were made to induce resistance
to minocycline in four sensitive strains
by a multiple passage technique. While
decrease in sensitivity was demonstrable,
the lack of the degree of resistance
was not achieved. It does not attain
in the naturally occurring strains.
During these experiments the organism
remained fully sensitive to erythromycin.
Attempts to transfer natural resistance
to sensitive strains were not successful.

In their general discussion the authors
comment that in the metabolism-inhibi-
tion test, which is widely used to detect
serum antibody, tetracycline in serum may
inhibit the test organism. They recom-
end that naturally occurring resistant
strains should be used in this test, as
many patients will be receiving teta-
cyclines when serum samples are collected.

G. L. Ridgway

Chlamydia infections (first of three parts)
Journal of Medicine, 298, 428–435

Chlamydia infections (second of three
parts)
Journal of Medicine, 298, 490–495

Chlamydia infections (third of three
parts)
Journal of Medicine, 298, 540–549

Infections due to Chlamydia
J. R. Hieber (1977). Journal of
Pediatrics, 91, 864–869

Reiter's disease

Role of Chlamydia trachomatis and
HLA-B27 in sexually acquired reactive
arthritis
A. C. Keat, R. N. Maini, G. C. Nkwazi,
G. D. Pegrum, G. L. Ridgway, and
J. T. Scott (1978). British Medical
Journal, 1, 605–608

Inflammatory arthritis, tendinitis, and
fasciitis after non-specific urethritis,
acute retention of infection of Chlamydia trachomatis and the presence of HLA-B27. Satisfactory cultures were obtained from the urethral swabs from 384 patients; HLA typing was performed on 482, of whom 30 (6%) were HLA-B27-positive. Arthritis developed in 16 patients, and five (36%) of the 14 with satisfactory cultures were positive for C. trachomatis; 135 of the patients without arthritis were also positive for C. trachomatis, an identical proportion. Seven (40%) of the 17 patients with arthritis who were HLA-positive were HLA-B27-positive.

Six of the 30 patients with HLA-B27 developed peripheral arthritis in contrast to only nine of the 452 patients lacking the antigen, suggesting a tenfold increased susceptibility. C. trachomatis, however, was no more prevalent in cultures from HLA-B27-positive men than from the others. Thus carriage of C. trachomatis is unlikely to be influenced by HLA-B27.

C. trachomatis may be an important pathogen in some cases of SARA but does not appear to be an exclusive trigger factor for this condition.

Authors' summary

Trichomoniasis

Interference of human spermatozoal motility by Trichomonas vaginalis

Candidosis

Treatment of vulvovaginal candidiasis in pregnancy: a comparative study

Genital herpes

Retention of urine in anogenital herpetic infection

In 17 patients, 15 women and two men, acute retention of urine developed in association with an attack of anogenital herpes. Constipation, blunting of sensation over the second and third sacral dermatomes, and neuralgic pains in the same area (with absence of the bulbo-cavernous reflex in some individuals) suggested localised lumbosacral meningomyelitis with involvement of mainly sacral nerve roots. The urinary dysfunction persisted on average for 10 days, and in four patients was severe enough to warrant catheterisation. Anogenital herpes should always be considered as a possible cause of acute retention of urine in sexually active young people, and the possibility of occult herpetic infection of the cervix and rectum should be investigated.

Authors' summary

Herpes simplex virus type-1 and type-2 in ocular disease

Treatment of genital infections with Herpesvirus hominis

Other sexually transmitted diseases


Genital warts

Intraurethral condylomata acuminata: management and review of literature

Anorectal condylomata acuminata: a missed part of the condyloma spectrum

Acute pelvic inflammatory disease: characteristics of patients with gonococcal and nongonococcal infection and evaluation of their response to treatment with aqueous procaine penicillin G and spectinomycin hydrochloride

We studied 41 women with acute gonococcal pelvic inflammatory disease (PID) and 42 women with acute nongonococcal PID. Women with gonococcal PID were more likely to have become ill during the first 10 days of their menstrual cycle (p<0.05), presented themselves for treatment sooner (p<0.05), and were more severely ill than patients with nongonococcal PID (p<0.05). Patients were treated with aqueous procaine penicillin G or with spectinomycin hydrochloride for five days. Most of the patients with nongonococcal disease responded to treatment. Neither drug, in the dosage used in this study, was highly effective in the treatment of acute nongonococcal PID.

In all, 10 of 21 women with nongonococcal PID and only one of 19 women with gonococcal PID required retreatment for PID within 28 days (p<0.05). Re-examination at an average of 6 months after treatment showed that women who had been treated for non-gonococcal PID were more likely to develop recurrent PID if the episode of PID treated in the study was not their first. Women treated for nongonococcal PID were also less likely to become pregnant (p<0.05).

These data, which show that gonococcal and nongonococcal PID differ in initial clinical severity, response to treatment, and long-term complications, support the concept that gonococcal PID and nongonococcal PID are separate clinical entities.

Authors' summary

Vaginal colonisation with Corynebacterium vaginale (Haemophilus vaginalis)

Vaginal cultures for Corynebacterium vaginale and confidential questionnaires were obtained from unselected young women who consulted a gynaecologist in a student health service. In all, 466 women...
were studied, 150 (32.2%) of whom were colonised with *C. vaginale*. Logit analysis defined four factors that were significantly associated with colonisation with *C. vaginale*: non-white race, use of oral contraceptives, no history of marriage, and a history of pregnancy. Sexual experience had little influence on colonisation; *C. vaginale* was isolated from 16 (29%) of 56 sexually inexperienced women and from 40 (41%) of 98 women who had had sexual intercourse with six or more men. After a few patients with trichomoniasis were excluded, there was no association between colonisation with *C. vaginale* and an abnormal vaginal discharge, either as reported by the participant or as noted by the examining physician.

**Authors' summary**

Hepatitis B surface antigen (HBsAg) and antibody to HBsAg. Prevalence in homosexual and heterosexual men


The prevalence rates of serum hepatitis B surface antigen (HBsAg) and antibody to HBsAg (anti-HB) were 5.6% and 34%, respectively, in 144 homosexual men in Seattle. Prevalence rates were only 0.9% and 3.6%, respectively, in 111 heterosexual male venereal disease clinic patients with nongonococcal urethritis, and also 0.9% and 3.6%, respectively, in 111 healthy men undergoing routine physical examinations. Thus previous exposure to hepatitis B virus (HBV) was estimated to be 8.8 times greater for homosexual men than for heterosexual men. Four of four HBsAg positive sera from homosexual men were subtyped as ‘ad’, whereas subtype ‘ay’ is preponderent in intravenous drug abusers. Future public health measures to control HBV infection should be directed to the prevention of sexually transmitted HBV infection among homosexual men.

**Authors' summary**

Sexually transmitted enteric pathogens in a male homosexual population


A review is made of reported cases of faecal-oral transmission of enteric pathogens in male homosexuals attributed to anilingus and, less commonly, to fellatio. Difficulties in making diagnoses lie in the recognition of the male homosexual patient, of the asymptomatic carrier states, and of the symptoms mimicking functional bowel syndromes or mild ulcerative colitis. Casual cold stool examination is considered insensitive, and repeated tests of multiple fresh purged stools are recommended. The danger of homosexual food handlers and waiters who are carriers passing on infection to patrons of restaurants is pointed out.

In a series of 89 stools examined from 100 middle-class homosexuals *Giardia lamblia* was found in nine, *Entamoeba histolytica* in seven, and non-pathogenic protozoa in 14. The suggestion is made that in New York City the majority of cases of amoebiasis and viral hepatitis in some areas are homosexually transmitted. In the lower West Side (Greenwich Village) the case rate (1975) for hepatitis B in men and women was 23.9 and 4.7 per 100,000, respectively, and for hepatitis non-B 45.8 and 10.2 per 100,000, respectively. Furthermore, in two health areas with the greatest homosexual congregation, case rates in men for hepatitis B were 66.3 and 24.7 per 100,000, no cases occurring in women; case rates of hepatitis non-B were 119.4 and 148.2 as against 40.3 and 12.5 per 100,000 for women. In these areas men were 11 times more likely to contract hepatitis than women living in the same areas.

**M. Waugh**

The gay bowel syndrome: Clinicopathologic correlation in 260 cases


The gay bowel syndrome: A review of colonic and rectal conditions in 200 male homosexuals


The 'gay bowel syndrome' is described as a recurrent constellation of colonic and rectal conditions presenting to proctologists which are by no means exclusive to homosexuals but epidemiologically appearing more frequently in that group. The clinical diagnoses in decreasing order of frequency included condylomata acuminata, haemorrhoids, nonspecific proc-}

Social injuries of the rectum


The dangers of 'fist fornication', the practice of introducing the closed or clenched fist into the rectal ampulla, upper rectum, and sigmoid colon to achieve sexual gratification, are reviewed. In a series of 11 male homosexual patients, mean age 35, who had received injuries, six had mucosal lacerations presenting with bleeding confined to the rectum, and four presented with physical findings of intra-abdominal perforation of the colon requiring laparotomy. One patient had an extensive injury to the anorectal sphincter resulting in complete anal incontinence.

The authors investigated the incidence of the practice by means of a questionnaire. Of 60 homosexuals admitting the practice, it was found that it occurred in older, more experienced men who often used various drugs, amyl nitrite, marihuana, LSD, mescaline, and alcohol, before the act. This potentially dangerous habit may be beginning to occur in heterosexual couples as well.

**M. Waugh**

John Hunter’s alleged syphilis


The allegation that John Hunter suffered from syphilis is challenged. It is suggested that he was the subject of non-juvenile vascular disease, evidence for which may be found by a study of his symptoms and necropsy report. It is further suggested that John Hunter’s famous inoculation experiment was performed
not on himself but on another subject. It is claimed that there is in fact no scientific evidence for attributing John Hunter's illness to syphilis, and it is urged that the stigma of this diagnosis should be expunged from his image.

Author's summary

Male urethritis in King County, Washington 1974-75. I. Incidence

Male urethritis in King County, Washington 1974-75. II. Diagnosis and treatment
American Journal of Public Health, 68, 26-30

The virus of hepatitis B, a new dimension in the diagnosis of sexually transmitted diseases

Behçet's syndrome in 32 patients in Yorkshire

HLA antigens associated with Behçet's syndrome

Bowen's disease of genital areas

Assessing clinical practice in genitourinary medicine

Male urethritis in King County, Washington 1974-75. II. Diagnosis and treatment
American Journal of Public Health, 68, 26-30