# Abstracts

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**Syphilis (serology and biological false-positive phenomenon)**

Diagnostic evaluation of syphilis during pregnancy


Utility of the FTA-ABS test of cerebrospinal fluid in the diagnosis of neurosyphilis


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**Syphilis (pathology and experimental)**

Endemic syphilis: passive transfer of resistance with serum and cells in hamsters

RF SCHELL, JK CHAN, AND JL LefRook (Albany Medical Center Hospital, New York, USA). J Infect Dis 1979; 140:378-83.

Endemic syphilis was studied in hamsters to determine whether serum or cells from animals rendered resistant to infection with Treponema pallidum (strain Bosnia) could confer resistance to syphilis in normal animals. The hamsters received either immune or normal serum at intervals for four weeks. Three days after the first injection they were challenged. A third group of animals received no serum and were similarly challenged with T pallidum. Lesions developed in all animals except those vaccinated with immune serum. The lymph nodes of the resistant animals contained a large number of treponemes but this was less than in the other two groups. Passive transfer of resistance with spleen cells using either normal or immunised hamsters showed after challenge that those animals having received cells from immunised hamsters did not develop syphilitic lesions. Treatment of the immune spleen cells with antilymphocytic serum and complement abolished the ability to transfer resistance. This appears to be the first direct evidence that thymus-derived cells are involved in resistance to syphilis.

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**Suppression of lymphocyte response to concanavalin A by mucopolysaccharide material from Treponema pallidum-infected rabbits**


The effect of reducing and other agents on the motility of Treponema pallidum in an acellular culture medium


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**Gonorrhoea (clinical)**

Gonococcal vulvovaginitis in prepubertal girls


Gonococcal pelvic inflammatory disease: economic impact in New York, Medicaid 1975


Gonococcal endocarditis in the antibiotic era

DB COOKE, D ARENSBERG, JM FELNER, D RIMLAND, AND LM LESSER (Emory University School of Medicine, Atlanta, Georgia, USA). Arch Intern Med 1979; 139:1247-50.
Before the introduction of penicillin up to 26% of cases of infectious endocarditis were due to Neisseria gonorrhoeae. Recently this condition, which had almost disappeared, has started to increase again (three cases are described) and should be suspected in any patient under the age of 30 and without pre-existing heart disease. It most commonly affects the aortic wall and may show a long latent period after the primary infection. As many as six blood cultures may be necessary to establish the aetiology. If the patient is not allergic to penicillin large doses should be given for 4-6 weeks. If the patient is allergic to penicillin desensitisation followed by penicillin therapy is preferable to other antibiotics. In two of the present cases aortic valve replacement became necessary.

G W Csonka

Gonorrhoea (microbiology)

In-vitro susceptibility of penicillinase-producing Neisseria gonorrhoeae to a select group of antimicrobial agents, alone and in combination (letter)


In a letter, the authors report the in-vitro susceptibility of 10 strains of β-lactamase-producing Neisseria gonorrhoeae to various antimicrobial agents. The strains were all susceptible to spectinomycin, trimethoprim/sulphamethoxazole (TMP/SMZ) in combination, cefazolin, amikacin, and, with one exception, to tetracycline. All strains were highly resistant to penicillin G, ampicillin, and, with one exception, streptomycin. A synergistic effect of the TMP/SMZ combination in a ratio of 1 : 19 reduced inhibitory concentrations to 0-31 and 5-9 mg/l respectively compared with >5 and >95 mg/l separately. Previous studies by the same author showed that a single dose of nine tablets of commercial TMP/SMZ (ratio 80 mg : 400 mg) will achieve blood concentrations of 2-16 and 31-7 mg/l respectively at 24 hours, well above the inhibitory concentrations effective against β-lactamase gonococci used in the study. Oral treatment on a single-dose basis may therefore be possible for these organisms.

Brian Evans

Evaluation of five serologic tests for antibody to Neisseria gonorrhoeae


Production of β-lactamase by a strain of Neisseria gonorrhoeae when cultured in the presence of ethidium bromide (letter)

S HAFIZ, TO ODUGBEMI, I GEARY, AND MG MENTEGART (University of Sheffield, UK). Lancet 1979; ii: 844.

β-lactamase-inhibitors—a novel approach (editorial)


Protection by monospecific gonococcal antisera of the chick embryo challenged with Neisseria gonorrhoeae


Sensitivity of Neisseria gonorrhoeae to partially purified R-type pyocines and a possible approach to epidemiological typing


Comparison of a slide coagglutination technique with the Minitek system for confirmation of Neisseria gonorrhoeae


Antibodies to Neisseria gonorrhoeae: a study of the urethral exudates of 232 men


Comparison of the penicillin-binding proteins of different strains of Neisseria gonorrhoeae


Assessment of attachment of Neisseria gonorrhoeae to HeLa cells by double radiolabelling


Co-transformation of temperature sensitivity and nutritional markers in Neisseria gonorrhoeae


Evaluation of a culture procedure for identification of Neisseria gonorrhoeae


Effects of low ampicillin concentrations on penicillin-sensitive and β-lactamase-producing strains of Neisseria gonorrhoeae


Screening by culture for the detection of gonorrhoea in women


Killing of Neisseria gonorrhoeae by human polymorphonuclear neutrophil granule extracts


Phenotypically determined resistance of Neisseria gonorrhoeae to normal human serum: environmental factors in subcutaneous chambers in guinea pigs


Variations in surface protein composition associated with virulence properties in opacity types of Neisseria gonorrhoeae

PR LAMBDEN, JE HECKELS, LT JAMES, AND PJ WATT (University of Southampton, UK). J Gen Microbiol 1979; 114: 305-12.

The ecology of gonococcal plasmids


Gonorrhoea (therapy)

Cefoxitin treatment of penicillinase-producing Neisseria gonorrhoeae

Genital mycoplasmal infection: intrauterine infection: pathologic study of the fetus and placenta

Mycoplasmal infection was present in the fetuses from three spontaneous abortions and in one neonate born in the second trimester. Gross examination revealed in most cases a severely infected placenta and membranes with a fetus of normal appearance. The fetal infection presumably followed placental involvement and appeared to have been acquired shortly before delivery. Genital mycoplasmas, Ureaplasma urealyticum, or Mycoplasma hominis were isolated from the placentas and the fetal tissues, and genital tracts of the mothers. Isolation of the mycoplasmas from the liver indicated that bloodstream dissemination of these organisms occurred in the fetus. In the fetus the pathological changes were variable. Lesions were identified in the lung by scanning electron microscopy of the bronchial tree in two cases and were accompanied by interstitial pneumonia. An abnormally dilated left ventricle suggesting cardiomyopathy was observed in one case.

Authors' summary

Delayed hypersensitivity to Chlamydia trachomatis: cause of chronic prostatitis?
(letter)

The authors of this case report describe the clinical course of a patient with the clinical features of chronic prostatitis. A 36-year-old man presented with a three-year history of pain in the perineum, lower back, and both testes; exacerbation and remission of these symptoms were noted during that period. The prostate was enlarged and tender, and an epididymitis was also noted. Although Chlamydia trachomatis was not isolated from the urethra of the patient nor from the cervix of his wife, chlamydal antibodies were detected in the sera from both. That the patient had developed delayed hypersensitivity to chlamydial antigens was demonstrated by a skin test. The patient's clinical condition improved when he was treated with a 5 1/2-month course of erythromycin.

A McMillan

Preparation of antigens for microimmunofluorescence testing for antichlamydial antibodies (letter)
Reiter's disease

The clinical features and HLA associations of reactive arthritis with nongonococcal urethritis


Fifty-seven patients with arthritis associated with nongonococcal genital infection have been studied. Synovitis characteristically affected one or a few joints, especially the knee, ankle, or metatarsophalangeal joints, and was accompanied by tenosynovitis and enthesopathies, each in about one-third of the patients. A quarter of the patients had ocular, cutaneous, or mucus membrane lesions (Reiter's syndrome). Although six patients developed a chronic or relapsing course, the average duration of the acute episode in most was three to five months. Available evidence strongly suggests that infection following sexual intercourse, usually but not always with a new partner, was instrumental in the initiation of the disease. We have suggested the term 

"sexually acquired reactive arthritis (SARA)" to emphasise the mode of acquisition of the disease, and note that similar syndromes are seen associated with gut infection. We consider that usage of the term Reiter's syndrome is correctly applied to only those cases which exhibit the characteristic triad of urethritis, arthritis, and conjunctivitis with or without other cutaneous and mucus membrane lesions. Thirty-six of the 54 patients who were HLA-typed (67%) possessed the antigen HLA-B27. Of 30, who presented directly to a rheumatology unit, 25 (83%) were HLA-B27-positive. The other 24 patients initially attended a venereology clinic and only 11 (46%) of these bore the antigen. This appears to reflect the severity of the disease, HLA-B27-positive patients having a significantly longer duration of disease symptoms and a higher frequency of extrarticular manifestations than those lacking this antigen.

**Authors' summary**

Ankylosing spondylitis and chlamydial infection in apparently healthy HLA-B27 blood donors


**HLA-B27 in patients with seronegative spondarthritides**

AN MALAVIYA, NK MEHRA, G ADHAR, K JINDAL, S BHARGAVA, RK BATTU, MC VAIDYA, AND B SANKARAN (Safdarjung Hospital, New Delhi, India). J Rheumatol 1979; 6:413-6.

Reiter's syndrome (editorial)

_Lancet_ 1979; ii:567.

Reiter's syndrome after salmonella infection — occurrence in HLA-B27-positive brothers


Trichomoniasis

Lack of evidence for cancer due to use of metronidazole


Candidosis

Requirement of heat-labile oposforins for maximal phagocytosis of Candida alibicans


Using a radiometric method, the requirement of heat-labile oposforins for phagocytosis was investigated. It was shown that these oposforins were required for maximal phagocytosis of two serologically distinct strains and 10 clinical isolates of C. alibicans. There was a 50% loss in the phagocytic potential of the test system when serum which had previously been heated to 56°C for 30 minutes was used in place of untreated serum.

_A McMillan_

Biochemical identification of clinically important yeasts


Assimilation of protocatechuis acid and p-hydroxybenzoic acid as an aid to the laboratory identification of _Candida parapsilosis_ and other medically important yeasts

BM COOPER AND G ALAND (Baylor University, Dallas, Texas, USA). _J Clin Microbiol_ 1979; 10:343-5.

Abortion associated with intrauterine infection by Candida albicans (case report)


Purification of a mannann from _Candida albicans_ which activates serum complement

Genital herpes

Association of herpes simplex virus (HSV) with cervical cancer by lymphocyte reactivity with HSV-1 and HSV-2 antigens
JW SMITH, JE TORRES, AND ND HOLMOVIIST

Demonstration of exogenous genital reinfection with herpes simplex virus type 2 by restriction endonuclease fingerprinting of viral DNA
TG BUCHMAN, B ROIZMAN, AND AJ NAHMIAS

Comparative prevalence of subclinical cytomegalovirus and herpes simplex virus infections in the genital and urethral tracts of low-income, urban women
GE KNOX, RF PASS, DW REYNOLDS, ST STAGNO,
AND CA ALFORD (University of Alabama, USA). J Infect Dis 1979; 140: 419-22.

Subclinical herpes simplex genitalis infection in the perinatal period

Other sexually transmitted diseases

Aetiological association of virus hepatitis and primary carcinoma of the liver in Germany

Aetiological association of virus hepatitis B and carcinoma of the liver has been repeatedly suggested. In the present series of 25 patients (19 men) with confirmed primary carcinoma of the liver a high proportion were either B antigen- or antibody-positive and 54-5% had had intimate contact with B hepatitis in the past. Similarly, a high proportion of cases of cirrhosis of the liver, which was also present in 22 of the group with primary carcinoma of the liver, showed this close association with B hepatitis. A control group of 548 normal individuals showed a significantly lower presence of hepatitis B antigen or antibody and only 7-4% had close contact with active hepatitis B. These results support other reports that hepatitis B virus infection is an important factor in cirrhosis of the liver, which may progress to carcinoma of the liver. (If this association is definitely confirmed, Australia antigen B hepatitis becomes one of the most sinister conditions so commonly encountered in clinics dealing with sexually transmitted diseases).

G W Csonka

Treatment of infestation with Phthirus pubis: comparative efficacies of synergized pyrethrins and benzene hexachloride
JH NEWSON, HB HORTON, AND HW BAKER

A new non-prescription pediculicidal liquid, essentially 0-3 pyrethrins synergised by 3% piperonyl butoxide, was compared with 1% y-benzene hexachloride, only available on prescription in the USA, for the treatment of infestation with Phthirus pubis.

Thirty adult patients with P pubis infestation were divided into two groups matched for age, sex, and race and randomly treated with either a single 10-minute application of the synergized-pyrethrin liquid or a single 12-hour application of y-benzene hexachloride lotion. The response to treatment was assessed by examining the pubic hair and water used to rinse the pubic area for lice and nits immediately after the prescribed time period and observing the patients after a week.

All adult lice and nymphs were dead at the conclusion of a single treatment in both groups and after a week all patients were free from lice, nymphs, and viable nits. No adverse side effects occurred after application of either medication.

It was concluded that the synergized-pyrethrin preparation is an advance, as it appears to be free of toxicity problems associated with chlorinated hydrocarbons and in the USA is available without prescription, enabling self-treatment without the embarrassment of seeking medical advice.

R S Pattman

Chronic hepatitis B infection in male homosexuals
P SKINHOJ, G HOYBYE, B HENTZER, F FABER,

Ten cases of hepatitis B virus infection were identified among asymptomatic male homosexuals. These patients shared a number of characteristics: a subclinical origin and course of infection; persistence of HBsAg for periods exceeding six to 25 months; persistent GPT elevation of 2-5 times upper normal limit; and morphological changes in the liver with portal and parenchymal inflammation (chronic persistent hepatitis, six cases; non-specific reactive hepatitis, two cases; cirrhosis and acute hepatitis with signs of chronicity, one case each). HBeAg was found in six cases, anti-HBe in none.

These results indicate that screening for hepatitis B should be performed whenever these individuals seek medical attention in order to detect asymptomatic chronic liver diseases and to detect these silent vectors of an infection that is at present increasing among homosexuals.

Authors' summary

Neisseria meningitidis urethritis
MA MILLER, P MILLIKIN, PS GRIFFIN, RA SEXTON,
AND M YOUSUF (Peoria School of Medicine, Illinois, USA). JAMA 1979; 242: 1656-7.

Neisseria meningitidis. Probable pathogen in two related cases of urethritis, epididymitis, and acute pelvic inflammatory disease
DC WILLIAM, YM FELMAN, AND MC CORSARO

Condylomata acuminata as a sign of sexual abuse in children
J SEIDEL, J ZONANA, AND E TOTTEN

Virusespecific and antecellular antibodies in molluscus contagiosum
PV SHIRODARIA, RS MATTHEWS, AND M SAMUEL
(Queen's University, Belfast, Northern Ireland). Br J Dermatol 1979; 101: 133-40.

Primary extragenital disseminated cutaneous donovanosis
VN SEHGA, NL SHARMA, NC BHARGAVA, M NAYAR,

Public health and social aspects

Screening for gonorrhea and syphils in gay bathhouses in Denver and Los Angeles
Effects of socioeconomic status on incidences of three sexually transmitted diseases


Social stratification, sexual behavior and the sexually transmitted diseases (editorial)

WW DARROW (Centre for Disease Control, Atlanta, Georgia, USA). Sex Transm Dis 1979; 6: 228–30.

Miscellaneous

Genital bacteriology—comparative study of premenopausal women with postmenopausal women


In view of reports that premenopausal women are at a higher risk than postmenopausal women of postoperative infection following vaginal hysterectomy a study was designed to compare the genital flora of premenopausal women less than 36 years of age with that of postmenopausal women over 55 years of age. All of the women admitted to the study attended a private clinic and were healthy and free of any genital symptoms. Bacteriological investigation included culture for aerobes, anaerobes, and mycoplasmas. No group of organisms was found to be significantly predominant in any set of patients and no statistically significant differences were found in the number of species of microorganisms isolated from the cervix and vagina of premenopausal and postmenopausal women (P > 0.05). These results are interpreted to suggest that there are factors in addition to bacteria which influence the rate of postoperative infection. Other factors which have been proposed to account for the differences in the risk of postoperative infection in premenopausal and postmenopausal patients are discussed, as is the possible role of the host defence system. (A study of the microbial flora of premenopausal and postmenopausal patients before undergoing hysterectomy would be of interest.)

H Young

Quantitative microbiology of human vulva


The microbial flora of the vulva is described and compared with the flora of the forearm by utilising the detergent scrub method. Microbial counts were higher on the vulva (2·8 x 10^6/cm^2) than on the forearm (6·4 x 10^5/cm^2). Lipophilic diphtheroids, coagulase-negative staphylococci, micrococci, non-lipophilic diphtheroids, and lactobacilli formed the dominant flora of the vulva. Streptococci, Gram-negative rods, and yeasts were also noted. The highest incidence of *Staphylococcus aureus* was noted on the vulva (67%) followed by the perianal area (30%), nose (30%), and the forearm (11%).

Authors’ summary

Do contraceptives influence the incidence of acute pelvic inflammatory disease in women with gonorrhoea


The incidence of pelvic inflammatory disease among contraceptive and non-contraceptive users was studied in 672 patients with gonorrhoea. Pelvic inflammatory disease was diagnosed in 87 and confirmed by laparoscopy. There was a significantly lower incidence of pelvic inflammatory disease in the group using hormonal contraception (8·8%) than in those using copper intrauterine devices (IUDs) (23·5%) (P < 0.001) and in those using neither hormones nor IUDs (15·1%) (P < 0.02).

There were 20 cases of pelvic inflammatory disease in the 85 patients using IUDs. Six of these became ill within three weeks of insertion of the IUD; it was not known whether or not these patients had genital urinary gonorrhoea before insertion. If these patients are excluded, the risk of pelvic inflammatory disease for women with an IUD for longer than three weeks was not greater than for the non-IUD and non-hormonal users, but it was still greater than for the group using hormonal contraceptives (P < 0.05).

J M Harvey

British Journal of Venereal Diseases

Inhibition of *Haemophilus vaginalis* (Corynebacterium vaginale) by metronidazole, tetracycline and ampicillin


The etiology and pathogenesis of pelvic inflammatory disease (editorial)

FG CUNNINGHAM (University of Texas, USA). Sex Transm Dis 1979; 6: 221–3.

Lactobacillus for vulvovaginitis (letter)

B Sandler (Manchester, UK). Lancet 1979; ii: 791–2

Prostatitis, prostatic or pelvic floor tension myalgia


Use of vaginal cleansing kit in non-specific vaginitis


Behcet’s syndrome (editorial)


Relationship between sexual intercourse and urinary tract infection in women attending a clinic for sexually transmitted diseases


Sacroiliitis and salpingitis