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)
Non-specific genital infection
Reiter's disease

Syphilis (pathology and experimental)

Acquired syphilitic uveitis

Secondary syphilis is an overlooked cause of iritis and posterior uveitis. Three cases of acquired syphilitic uveitis were observed, two of which occurred in male homosexuals. In the first three patients, a delay in diagnosis and treatment led to irreversible loss of vision and visual field. In the latter two cases, an increased index of suspicion led to earlier diagnosis and treatment with complete recovery of vision.

Authors' summary

Congenital neurosyphilis and juvenile paresis. A forgotten entity?
J WIGGELINKHUIZEN AND R MASON

Syphilis (serology and biological false-positive phenomenon)

Serologic responses to treatment of 128 patients with late latent syphilis
NJ FIUMARA (Boston University School of Medicine, Boston, USA). Sex Transm Dis 1979; 6: 243-6.

One hundred and twenty-eight patients who had been treated for late latent syphilis were followed. Benzathine penicillin G (2.4 x 10^6 units given intramuscularly once a week for two weeks) was given to 123 patients, and five patients were given tetracyclines (500 mg orally four times daily for 12 days). Of these patients, 56 (44%) became seronegative within five years and 72 (56%) had persistently positive reagin test results.

Author's summary

Gonorrhoea (clinical)

Aseptic arthritis after gonorrhoea

Sixteen patients with aseptic arthritis developing after gonorrhoea and 14 patients with arthritis after nongonococcal urogenital infection have been analyzed with respect to clinical course, roentgenological signs, and humoral as well as cellular immune responses to Neisseria gonorrhoeae antigen. Fifty-eight healthy blood donors were used as controls. The clinical pattern did not differ significantly between the two groups. Eye or skin lesions indicative of Reiter's syndrome were found in five patients of both groups. Signs of sacroiliac arthritis were found in eight and six patients respectively. Gonococcal complement fixation gave a positive result in nine of 16 patients in the postgonococcal arthritis group and in none of 14 patients in the arthritis group with nongonococcal urogenital infection. The lymphocyte stimulation induced by gonococcal antigen was significantly greater in patients with postgonococcal arthritis than in healthy controls. When reference was made to the results of stimulation of the lymphocytes with PPD, there was also a significant difference in the lymphocyte reactivity to gonococcal antigen between the group of patients with postgonococcal arthritis and that of patients with arthritis after nongonococcal urogenital infection. No such difference was noted between the latter group and the healthy controls. The clinical and immunological data support the hypothesis that Neisseria gonorrhoeae may induce an aseptic arthritis which sometimes presents as a complete Reiter's syndrome.

Authors' summary

Colonization of the pharynx with Neisseria gonorrhoeae: experience in a clinic for sexually transmitted diseases

Material from the pharynx of 1453 patients (841 men and 612 women) who attended a sexually transmitted diseases clinic was cultured for Neisseria gonorrhoeae. The organism was isolated from the throat of 19 (2%) men and 23 (4%) women. Infection was confined to this site in eight men and 13 women. Eleven heterosexual men became infected during coitus; the other men with pharyngeal gonorrhoea had had homosexual contact.

A McMillan
Epidemiologic follow-up study of patients with gonococcal pelvic inflammatory disease

Gonorrhoea (microbiology)

Association between auxogroup of Neisseria gonorrhoeae and the minimal inhibitory concentration of penicillin
IO STEWART AND AT HENDRY (McMaster University, Ontario, Canada). Sex Transm Dis 1979;6:247-52.

Detection of 3-hydroxy fatty acids at picogram levels in biologic specimens: chemical method for the detection of Neisseria gonorrhoeae

Identification of organisms by Gas liquid chromatography (GLC) usually depends on the recognition of specific patterns of microbial metabolites. This study reports a method to identify a bacterial component, 3-hydroxy dodecanoic acid (3-OH C12:0 or β-hydroxyauric acid), as a marker for the presence of Neisseria gonorrhoeae. Neisseria differ from most other Gram-negative bacteria in that 3-OH C12:0 is the major hydroxy acid and is responsible for 10-20% of the total fatty acid content of the cell; in most Gram-negative bacteria, 3-hydroxy tetradecanoic acid (3-OH C14:0 or β-hydroxymyristic acid) is the major hydroxy acid and 3-OH C12:0 is less than 5% of the quantity of 3-OH C14:0. The method described is reported to be sensitive and reproducible; it involves several time-consuming procedures, including the preparation of a heptafluorobutyl derivative of the butyl ester of the fatty acid and its purification and detection by GLC using an electron capture detector.

Thirty-one cervical specimens with known culture results for N gonorrhoeae were examined by the GLC method. Of 19 culture-positive specimens, 15 were found to be positive for the presence of gonococci by detecting 3-OH C12:0. Of the 12 culture-negative specimens, three were identified as positive by GLC. Organisms that are frequently found in vaginal flora (Lactobacillus plantanum, Peptostreptococcus anaerobius, Peptococcus species, and Bacteroides fragilis) were examined and found to be devoid of 3-OH C12:0. Limitations of the method are that about 10% gonococci are required for detection and that other neisseriae if present in the genital tract in these numbers would also give a positive result. The method requires further study, particularly with a view to simplifying the methodology and decreasing the time required for processing specimens. 

H Young

Detection of antibodies reactive with Neisseria gonorrhoeae in secretions on extra-genital surfaces

Using an immunofluorescent antibody test, antigonococcal antibody was found in the rectal secretions of six of 18 men with rectal gonorrhoea; this was of the IgG class in all six and associated with IgA in three. This antibody was only detected in two of 14 women with rectal infection.

Antibody reactive with Neisseria gonorrhoeae was found in the saliva of each of 12 men and in four of six women with oropharyngeal gonorrhoea.

Salivary antibody was found in 10 of 18 homosexual, and in two of 23 heterosexual, men with urethral or rectal gonorrhoea but without apparent pharyngeal infection (p<0.05).

Authors’ summary

Serology of Neisseria gonorrhoeae. Demonstration by co-agglutination and immuno-electrophoresis of antigenic differences associated with colour-opacity of colonial variants

Characterization of rabbit hyperimmune antiserum by line-rocket immuno-electrophoresis for use in co-agglutination

Purine metabolism in Neisseria gonorrhoeae: the requirement for hypoxanthine

Growth of Neisseria gonorrhoeae in continuous culture
Stabilization and purification of ornithine transcarbamylase from Neisseria gonorrhoeae

Gonorrhoea (therapy)
Pharyngeal infection with Neisseria gonorrhoeae
NJ FIUMARA (Boston University School of Medicine, Boston, USA). Sex Transm Dis 1979;6:264-6.

During 1978, 156 patients were treated for pharyngeal infection with Neisseria gonorrhoeae; 115 (74%) returned for a post-treatment culture. Treatment with aqueous procaine penicillin G (4·8 × 10⁶ units) given intramuscularly with (19 patients) or without (64 patients) orally administered ampicillin for four days was successful in 86% of cases. All seven patients who received tetracycline hydrochloride orally for five days had negative results to post-treatment cultures as did nine of 12 patients who had received 2·0 g (four patients) or 4·0 g (eight patients) of spectinomycin hydrochloride intramuscularly. Concurrent anogenital infection with Neisseria gonorrhoeae was documented for about 60% of the patients and, with one exception, was eradicated by these treatment schedules.

Authors' summary
Treatment of anorectal gonorrhoea infections in men
M SANDS (San Francisco City Clinic, USA). JAMA 1980;243:1143-4.

Non-specific genital infection
Chlamydial pneumonia of infancy: further clinical observations

Two infants with pneumonia attributed to infection with Chlamydia trachomatis presented at eight and six weeks with difficulty in breathing associated with vomiting and nasal congestion. Both were noted to have conjunctivitis dating from shortly after birth.

On examination the 8-week-old girl was tachypnoeic, and bilateral wheezes with rales were noted. Relevant laboratory results were negative except for a serum immuno-fluorescent antichlamydial antibody titre of 1/65 536. Chest radiographs showed hyperinflation with bilateral extensive infiltration. The baby improved and remained asymptomatic after a seven-day course of ampicillin and gentamycin.

The boy was admitted at 6 weeks old after a course of sulphacetamide eyedrops as he had developed tachypnoea with inspiratory rales and ronchi. Chest radiographs showed bilateral hyperaeration with streaky infiltrates of the left upper lobe. Epinephrine cleared the wheezes initially but congestion, cough, and mild tachypnoea were noted at 5 months old when he presented with bilateral otitis media. Laboratory investigations were unremarkable except for serum immuno-fluorescent antichlamydial antibody titre in excess of 1/65 536 with a concomitant maternal titre of 1/1024. A prolonged course of sulfisoxazole eventually ensured complete resolution. Unfortunately culture for C trachomatis is not reported for either case.

In conclusion it is stressed that chlamydial pneumonia of infancy should be considered in cases of possible bronchiolitis or bronchial asthma in infancy and that wheezing may be a predominant clinical manifestation. Spontaneous resolution may occur, as in the first case, where antibiotics unacceptable in treating chlamydial infections were used; alternatively, the infection may become persistent and protracted, as in the second case, where further treatment was given when the child was 8½ months old.

R S Pattman

Perihepatitis and chlamydial salpingitis

In four patients with acute salpingitis (three of whom also had perihepatitis) the diagnoses were verified by laparoscopy or laparotomy; all four had cultural and serological evidence of current infection with Chlamydia trachomatis whereas none had signs of gonococcal infection. Three of the four patients had symptoms in the right upper abdomen, but the liver surface showed signs of perihepatitis in only two. In the fourth patient perihepatitis was diagnosed, although she denied symptoms in the hepatic region. Thus symptoms in the right upper abdomen in a young woman may be an indirect sign of a genital infection.

Authors' summary

Lack of evidence for an association between infection with Chlamydia trachomatis and Crohn's disease as indicated by microimmuno-fluorescence antibody tests

A significant difference has recently been reported in the occurrence of serum antibodies to the lymphogranuloma venereum (LGV) immunotypes of Chlamydia trachomatis between patients with Crohn's disease and controls. In the present study, sera from 107 patients with Crohn's disease (33 men and 74 women) were tested for antibodies to C trachomatis...
by an indirect immunofluorescence test using two pools of antigens. Each pool contained antigens to either immunotypes TRIC D-K or LGV 1-3. None of the patients had IgM antibodies to the organism. IgG antibodies occurred significantly more often in female than in male patients. No correlation could be demonstrated between activity and duration of Crohn’s disease and the results of the antibody tests.

For comparison, the sera of 50 puerperal women were studied. No difference in the occurrence of IgG antibodies was found between patients and controls when using either of the two pools of antigen, thus indicating that the antibodies detected had probably been induced by TRIC rather than LGV organisms. To conclude, the study did not indicate an association between Crohn’s disease and infection with C trachomatis.

Authors’ summary


colonies morphology, ultrastructure, and morphogenesis in Mycoplasma hominis, Acholeplasma laidlawii and Ureaplasma urealyticum

Reiter’s disease


Trichomoniasis

Screening for Trichomonas vaginalis infection by use of acridine orange fluorescent microscopy

The acridine orange test for detection of Trichomonas vaginalis in smears has been adapted for delayed examination of specimens. Slides sent by post and stained by acridine orange were compared with on-site wet mounts; the acridine orange test detected 96% of all positive results whereas only 76% were detected by wet mounts. In a similar comparison with Papanicolaou smears, the acridine orange test detected 89% compared with 67% detected by Papanicolaou smears.

Authors’ summary


Sister chromatid exchanges in lymphocytes treated with metronidazole HC WULF (Finsen Institute, Copenhagen, Denmark). Dan Med Bull 1980;27:38-40.

The effect of metronidazole on the number of DNA exchanges between the two chromatids of a chromosome (sister chromatid exchanges, SCE) was studied. SCE evaluation has been reported as a sensitive method of demonstrating the possible mutagenic effects of chemical agents.1 Leucocytes grown in medium containing metronidazole 30 µg per ml did not show increased SCE over control preparations. However, when the concentration of metronidazole was ≥60 µg per ml, significantly increased SCE were found. This finding is important, as a single 2-g dose of metronidazole produces a plasma concentration of 30-45 µg per ml for three hours after ingestion.

Reference


Candidosis


Genital herpes


Other sexually transmitted diseases

Multicentric, pigmented carcinoma-in-situ in the vulva in association with vulval condylomata acuminata


A 22-year-old British woman developed pigmented lesions of the vulva three months after having vulval condylomata acuminata. She had had 15 applications of podophyllin and her consort had also had penile warts.

Subsequent multiple biopsies showed the pigmented vulval dystrophic nodules to be carcinoma-in-situ. Hyperplastic epithelium, loss of cellular stratification, and cellular atypia were all present. Melanin pigment was demonstrated in some of the atypical epithelial cells but was found chiefly as melanophages in the underlying upper dermis.

The lesions were all excised and had identical histology to that seen in the initial biopsies. The remaining warts were also removed. However, no viral particles were seen on electron microscopy of the skin. The wound healed without secondary infection and no dyspareunia ensued.

Although no other abnormality was found (including cervical exfoliative cytology) in this rare case, the authors stress the possible association with similar changes in the cervix and vagina. It was essential to maintain prolonged follow up so that changes in all parts of the genital tract could be monitored.

J M Harvey

Pediculosis pubis in a clinic for treatment of sexually transmitted diseases

TA CHAPEL, T KATTA, T KUSZMAR, AND D DEGIUSTI (Wayne State University, Michigan, USA). Sex Transm Dis 1979; 6:257-60.

Serologic markers of hepatitis A and B in acute and chronic liver disease


Miscellaneous

Pulmonary function in Behcet’s syndrome


The combined use of HLA-B5 and the pathergy test as diagnostic markers of Behcet’s disease in Turkey


Bacterial colonization of human urethral mucosa. 1 Scanning electron microscopy