ABSTRACTS

This section of the journal is published in collaboration with the two abstracting journals, ABSTRACTS OF WORLD MEDICINE and OPHTHALMIC LITERATURE, published by the British Medical Association. The abstracts are divided into the following sections:

Syphilis (Clinical, Therapy, Serology, Biological False Positive Phenomenon, Pathology, Experimental).
Gonorrhea.
Non-Gonococcal Urethritis and Allied Conditions.
Reiter's Disease and Allied Conditions.
Antibiotics and Chemotherapy.
Public Health and Social Aspects.
Miscellaneous.

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

SYMPHILIS (Clinical)
Syphilis of the Lung. A Case Report and Discussion of Its Clinical Diagnosis [In English].

Syphilis of the lung has never been common, perhaps partly because of the difficulty of diagnosis. Modern treatment has rendered it even more rare. The patient described in this paper from Rambam Government Hospital and Centre for Prevention of Lung Diseases in Haifa, Israel, is therefore of considerable interest.

The patient was a 59-year-old male, the father of three healthy children, with a history of syphilis at age 27 years, which had been treated by twelve injections of arsenic. He was symptomless and was referred for study because routine serological tests for syphilis were positive. Clinical examination of the cardiovascular and central nervous systems revealed little abnormality. Some pigmented chorioretinal foci were seen in the left eye and there was pallor of the right optic disc. ESR, blood chemistry, liver function tests, and paper electrophoresis were normal, as were Waaler-Rose, latex-fixation, Kveim, and Mantoux reactions. Repeated bronchial aspiration and gastric lavage showed no evidence of tubercle bacilli, fungi, neoplastic cells, or eosinophilic cells. The results of serological tests were: VDRL +++, Kolmer +++, WR +++, (in dilutions up to 1:16), and TPI positive. Radiographs of the chest revealed infiltration of both upper lobes and the middle field of the right lung, and over the left pulmonary artery there was a round shadow with a lucent centre. X-rays of the skull and long bones were normal.

Treatment consisted of aqueous procaine penicillin, 1 megaunit daily for 22 consecutive days. One month later the WR titre dropped to 1:4 in dilution and the radiographic appearances showed marked improvement.

Although diagnostic doubts remain, the following criteria were met: a history of syphilis; no symptoms of pulmonary disease; exclusion of other forms of pulmonary disease; positive serological tests for syphilis although Treponema pallidum was not demonstrated; radiographic evidence suggestive of gummatous infiltration; and a convincing therapeutic test. The chorioretinal foci were considered to be associated syphilitic lesions.

It is concluded that this case conforms to all previously suggested criteria for a clinical diagnosis of syphilis of the lung.

A. J. Gill


Seventeen cases of syphilitic interstitial keratitis were studied from the clinical viewpoint.

In addition to peripheral anterior synechia and pigment deposition, gonioscopic examination of eight eyes showed a small whitish mass occupying the iris root to the trabecula. The detailed clinical course in two cases and precautions against recurrence are discussed.

J. M. Chang

Syphilis as an Unusual Cause of Aches and Pains.


**SYMPHILIS** (Therapy)


**SYMPHILIS** (Serology)


In this study, sera from 827 patients were examined by the VDRL slide and FTA-ABS tests at the Houston City Health Department Laboratory and duplicate specimens by the VDRL and TPI tests at a reference laboratory. When the FTA-ABS and TPI results disagreed, both tests were repeated. The patients tested included 335 with treated or untreated syphilis, 44 with false positive reagin tests, 202 with conditions other than syphilis, and 246 presumed normal individuals. The results are presented in three tables in detail.

93 sera (11 per cent.) showed discrepancies between the FTA-ABS and TPI results, the former being reactive and the TPI negative in 83 instances. 46 of these latter patients were considered to have definite evidence of syphilis, but 37 had no historical or clinical evidence of the disease. In 29 the FTA-ABS result was only weakly reactive, but if unconfirmed FTA-ABS results were discounted, there were twelve patients with unexplained reactive FTA-ABS tests which had been confirmed at the reference centre.

Further investigation of these twelve patients produced a history of treated syphilis in three, a history of a clinical chancre in a patient who was lost to follow up, and a further three patients who had repeatedly positive Reiter protein complement-fixation tests. The FTA-ABS tests were thought to be specific in these seven patients. Of the remaining five, two had no evidence of disease and three conditions in which abnormal globulins are known to occur (rheumatoid arthritis, autoimmune haemolytic anaemia, and alcoholic cirrhosis). Absorption of these five sera with ultrasonically disintegrated Reiter treponemes or latex in place of the usual sorbing agent rendered the FTA-ABS test negative in four; the fifth, from an apparently normal Negro woman, aged 50, remained reactive and was presumably non-specific.

A. E. Wilkinson


The antibody produced in intrauterine infection is at least partially IgM in nature, while that crossing the placenta from the mother is thought to be exclusively IgG. The authors, working at the University of Alabama, investigated eight congenitally syphilitic infants. VDRL tests, FTA-ABS tests with anti-IgM and anti-IgG conjugates, and quantitative estimations of serum IgM levels were performed on serial specimens of serum from birth onwards. Six of the babies came under observation because VDRL tests had been found positive on cord blood and two had signs of congenital syphilis.
Rising VDRL titres, or titres higher than the maternal level, were found in five of the babies and IgM was detectable by the FTA-ABS technique in all and the serum IgM tended to be raised above the normal level. The FTA test for IgM was found to be a valuable indication of antibody production, and hence presumptive evidence that infection had occurred. In some cases with a delayed onset, the IgM FTA test became positive and the serum IgM rose while the VDRL titre remained stable; later, with the onset of symptoms, all the tests became positive.

Neither IgG nor IgM antibodies were detectable by the FTA test in cord blood from 22 babies without clinical abnormalities, half of whom had raised IgM levels. In 66 infants whose cord blood gave positive VDRL tests as a result of passive transfer of maternal antibody, the IgG FTA test was positive but the IgM FTA test negative. None of these babies had signs of congenital syphilis and all were followed until they became sero-negative.

It is recommended that VDRL and FTA-ABS tests should be used routinely to screen cord or neonatal serum and that the latter test with an anti-IgM conjugate should also be used. To detect delayed onset of disease, serial tests should be performed.

A conjugate specific for IgM which does not cross-react with IgG is essential for this test. The authors apparently found it necessary to absorb their anti-IgM conjugate with "Reiter polysaccharide" to prevent non-specific reactions with normal serum.

A. E. Wilkinson


SYPHILIS (BFP Phenomenon)


In 1967, 1,021 employees of the George Washington Memorial Hospital were vaccinated against smallpox with a lyophilized vaccine. Most had had serological tests for syphilis performed previously, presumably as pre-employment tests. RPR card tests were carried out on groups at intervals of 35 to 95 days after vaccination, a total of 601 being examined. Positive results were checked by repeating the RPR card test and carrying out a VDRL and Reiter protein complement-fixation test. 39 positive results were obtained; 26 of these were in persons with a history of syphilis or with positive serological tests for syphilis before vaccination. Excluding these, and three who were lost to observation, there were ten probable false positive reactors among 575 persons tested, an incidence of 1.7 per cent. This figure is lower than that found in previous studies, but no tests were performed until 5 weeks after vaccination. The first false positive result was found 37 days and the last 88 days after vaccination. No correlation was attempted between the response to vaccination and the production of a false positive result in the RPR card test.

A. E. Wilkinson

[Reprinted from Abstracts on Hygiene, by permission of the Editor]
of the specimens gave a positive VDRL or Kline test, but 25 (24 per cent.) of 103 showed a positive latex test in titres ranging from 1 in 20 to 1 in 640. The authors thought that the incidence of BFP reactions in infectious mononucleosis was likely to be no higher than that found in the general population. The significance of the high incidence of positive reactions for rheumatoid factor was not clear and required further study. [Positive latex tests in titres of 1 in 20 are usually considered of no significance and unfortunately the number of positives at higher titres is not given.] P. Rodin

**SYPHILIS (Pathology)**


The ultrastructure of *Treponema pallidum* Nichols has been investigated by means of ultrathin sectioning and negative staining techniques. Some organisms were obtained after an extraction and a purification process for removal of testicular tissue fragments, and others were studied in situ in infected rabbit testes after fixation of the tissue by a supravital perfusion technique.

The number, mode of attachment, and the substructure of the intracellular fibrils are described. *Treponema pallidum* Nichols has two bundles of filaments, each consisting of three individual fibrils, inserted into the cytoplasm at either end of the organism. The substructural pattern of the individual fibrils agrees well with that of bacterial flagella.

Ultrathin sections show the same organization of the membranes surrounding *Treponema pallidum* Nichols, as that now generally accepted for Gram-negative bacteria.

The ultrastructure of the organisms in the infected tissue is identical with that observed in organisms extracted from such tissue. [Authors' Summary]


**SYPHILIS (Experimental)**


Previous reports from the Institut Alfred Fournier, Paris, have shown that treponemes may persist in latently treated syphilis, and this has been confirmed at several other centres. In the present paper the authors describe the results of transferring biopsy material from the lesions of human primary and secondary syphilis to rabbits. Eleven biopsy specimens were taken from patients with sero-positive primary and secondary syphilis which had been confirmed by the finding of treponemes in serum from the lesions. The specimens were inoculated into the rabbits within an hour of their being obtained, after further confirmation that they contained active treponemes.

The success of transfer was judged bacteriologically, serologically, and biologically (by transplanting popliteal lymph nodes from the inoculated rabbits into others). Fifteen rabbits were inoculated: the results were positive in eight cases, doubtful in one, and negative in six. The lesions produced were very small (the size of a rice grain) in all but one positive case, though they persisted for several months. Treponemes were found only in small numbers, but they were sometimes present for long periods—8 months in one case and 12 in another.

On average, the bacteriological results became positive after 2½ months, the serological results only after 7½ months. The titres of both immobilizing and fluorescent antibodies were low in all cases.

Transfer of popliteal lymph nodes was performed in six cases; positive results (after 7 months) occurred in only two.

The authors conclude that treponemes can be present for a long time in an organism without the serological results becoming positive; this could be owing to a reduced capacity for multiplication on the part of the treponemes. They also point out that negative or weakly positive serological findings, even after adequate antisyphilitic treatment, do not necessarily mean that treponemes have been eradicated from the body. Even a negative result from a tissue transplant from a syphilitic patient to an animal is difficult to evaluate, because we have no reliable criteria whatever for bacteriological sterilization in this disease.

R. D. Catterall


**GONNORHOEA**


A case is reported of purulent ophthalmia neonatorum from which *Herellea vaginicola* was isolated. This organism is Gram-negative intra-cellular and so resembles the gonococcus. Recognition is important because it is penicillin-resistant. Response occurred with neomycin-bacitracin-polyoxin ointment. Ronald Lowe


At the University Central Hospital, Helsinki, 200 male patients with gonorrhoea were treated with single
oral doses of doxycycline (Vibramycin). Of 100 given 200 mg., 69 were followed up and in ten (14 per cent.) gonococci were found on re-examination 7 to 14 days later. Of 100 receiving 300 mg., 64 were followed up and in only four (6 per cent.) were gonococci found on re-examination. Three patients vomited; otherwise the drug was well tolerated. Disc sensitivity tests were made in 135 cases; in 117 the organism was highly sensitive to doxycycline and in the remaining fifteen "slightly increased resistance" was noted. Only two of the nine strains from cases with treatment failure on which the disc sensitivity test had been performed showed increased resistance.

R. R. Willeox


In a previous paper (Brit. J. vener. Dis., 1967, 43, 157) the author showed that single doses of 0.9 g. demethylchlortetracycline gave an overall failure rate in gonorrhoea in males of 20 per cent. When two doses, each of 1.2 g., were given at an interval of 4-6 hours, the overall failure rate was 14.8 per cent., but if only non-Negro patients were considered the failure rate dropped to 5.6 per cent.

The present study, reported from St. Mary's Hospital, London, was carried out on 107 male non-negro patients with uncomplicated gonorrhoea. Each patient was given 1.2 g. demethylchlortetracycline orally, under supervision at the clinic, and was instructed to take a further 1.2 g. 4 to 6 hours later. The patients were instructed to return within 2 to 3 days for re-examination of urethra and urine, and it was planned to see them thereafter at intervals of 1, 2, 4, 8 and 12 weeks after treatment. In this series all recurrences occurring within the first 2 weeks were considered to be treatment failures since none of the men gave a history of further sexual exposure.

Of the 107 patients, 93 (87 per cent.) were followed up and these showed a failure rate of only 4.3 per cent. Treatment was well tolerated and side-effects (vomiting and diarrhooe) occurred in only three patients.

The author concludes that in this dosage and in non-negro patients demethylchlortetracycline gives results comparable to those with single injections of aqueous procaine penicillin and is a suitable alternative treatment for gonorrhoea in males who are allergic to penicillin.

A. J. Gill


In Vietnam gonorrhoea is a major health problem, and failure rates are high. At Mary Hitchcock Memorial Hospital, Hanover, New Hampshire, and Cleveland Clinics, Cleveland, the authors have evaluated 4 regimes currently in use:

(a) 2-4 megaunits procaine penicillin on 2 consecutive days;
(b) the same as (a) plus 2-4 megaunits benzathine penicillin on the third day;
(c) 2-4 megaunits procaine penicillin plus 1 g. probenecid 1 hr. before the penicillin and 0.5 g. 6-hrly after it;
(d) 2 g. tetracycline hydrochloride initially followed by 0.5 g. four times daily for 10 days, or alternatively 1.5 g. initially and 0.5 g. four times daily for 4 days.

Four hundred men (mainly Air Force personnel) with culture-proven gonorrhoea were treated over a 6-month period. The only principle of selection was that any man having a concurrent nongonococcal infection was excluded. Persistent discharge after treatment was investigated by smear and culture, and all suspicious cultures were tested for oxidase and sugar fermentation reactions. Antibiotic sensitivities were also determined (by the disc method).

The failure rates with the different regimens were as follows:

(a) 25 per cent. (18 out of 71);
(b) 9.3 per cent. (9 out of 97);
(c) 7.5 per cent. (7 out of 91);
(d) 7.1 per cent. (10 out of 141). Eight patients who failed to respond to penicillin and four who failed to respond to tetracycline showed resistance to the respective antibiotic used. [Resistance levels are not reported.]

The findings are discussed. For reasons of cost and convenience the authors prefer the penicillin-probenecid regimen.

R. S. Morton


Smears are prepared from the secretions to be examined, these should be diluted in a drop of saline if unduly viscous. After drying in the air, the slides are fixed by gentle heat and immersed in 3 per cent. formal saline for 3 minutes and rinsed in saline. While still moist they are stained for 10 minutes with fluorescein-labelled anti-gonococcal serum in which 1 mg./ml. Naphthalene Black TS is dissolved as a counterstain. Excess stain is rinsed off and the slides washed in saline for 3 minutes and finally rinsed in de-ionized water.

The slides are read by darkground illumination from a mercury vapour or quartz iodine source; a fluorite × 50 oil immersion objective and a × 6 ocular are used. A combination of Kodak Wratten gelatin filters 32 and 38A and an Agfa-Gevaert gelatin filter R438E10 sandwiched between cover glasses is recommended as an exciter filter in combination with a Wratten 12 barrier filter. Gonococci stain bright yellow-green against a bright red background of leucocytes and debris. This method (developed at the University of Glasgow) is sufficiently rapid to be used while the patient is still in the clinic. [No information is given about cross-reactions with other organisms; some workers have found bright
staining of some strains of Staph. aureus by anti-gonococcal sera prepared in rabbits.]  
A. E. Wilkinson  
[Reprinted from Abstracts on Hygiene, by permission of the Editor]

Treatment of Pencillin-resistant Gonococcal Conjunctivitis with Ampicillin. SPÆTH, G. L.  

Failure of Penicillin Therapy of Gonococcal Infection in Cases treated at the Dermatological  
Clinic of the University of Cagliari, 1855-88.  
sarda, 71, 389. 9 refs.

Gonorrhoea of a Congenital Duct in the Raphe Penis. DLABLOVA, H., KRAUS, Z., DLABAL, K., and  

Antigens of Neisseria gonorrhoeae: Characterization by Gel Filtration, Complement Fixation,  
and Agar-Gel Diffusion of Antigens of Gonococcal Protoplasm. DANIELSON, D. G., SCHMALE,  

Comparative Study of a Regime of Single Doses of Hetacycline and Ampicillin in Gonorrhoea  
979.

Oxidase Reaction: A Rapid and Simple Method for Diagnosis of Gonorrhoea. UPPAL, T. B.,  

Treatment of Gonorrhoea with a Single Dose of Rifampicin. (Trattamento da benorragia com dose  

NON-GONOCOCCAL URETHRITIS AND ALLIED CONDITIONS

Factors influencing the preservation of eight strains of Trichomonas vaginalis at low temperatures  
were studied at the University of Modena. Two culture media were used, CPLM medium and a commercial  
preparation, Trichsel broth (Baltimore Biological Laboratories), to which were added 5 to 10 per cent.  
glycerol or ethylene, diethylene or propylene glycols as protective agents. The media were put up in 16 x 15 cm. tubes, inoculated, and incubated for 40 to 72 hrs.  
before freezing. After various intervals, the tubes were thawed, and specimens were examined microscopically for the presence of motile trichomonads, subcultured, and re-frozen.  
Trichsel broth gave slightly better results than CPLM medium, the difference being more marked on cultures which were repeatedly frozen and thawed. Glycerol gave considerably better results than the other protective agents. A storage temperature of -70°C was markedly better than -30°C and the importance of slow freezing (30 to 45 minutes successively at +4°C, -30°C, and  
storage at -70°C) and rapid thawing in a water bath at 40°C is stressed. In one experiment cited, viable organ-  
isms were recovered from five of eleven tubes which had been frozen and thawed five times over a period of  
220 to 225 days' storage at -70°C.  
A. E. Wilkinson  
[Reprinted from Abstracts on Hygiene, by permission of the Editor]

Acute Pelvic Inflammatory Disease in an Indigent Population. WRIGHT, N. H., and LAEMMLE, P.  

This study reports the incidence during 1965 of acute pelvic inflammatory disease (PID) in women living in the area around Atlanta, Georgia. Taking all women between the ages of 15 and 45 years into account, 478 first attacks of acute PID were recorded, an incidence of 9-6 attacks per 1,000 women. This figure rose to 20.8 per 1,000 for women in the first year after childbirth,  
and 50.3 per 1,000 for women in the first year after abortion. However, no attacks were recorded during the month immediately following the abortion. The rate during the first year after pregnancy (ending in child-  
birth or abortion) was over twice as high amongst women accepting contraceptive advice than amongst those  
refusing. This high level was due to the very high rate amongst women fitted with an intrauterine contraceptive device (66.2 attacks per 1,000 women, or one attack per fifteen women): women using oral contraceptives  
had an attack rate of only 13.4 per 1,000 women. The validity and significance of these differences is discussed.  
M. J. Hare

Brit. med. J., 3, 467. 11 refs.

During one year swabs were taken from infected eyes of babies born in Withington Hospital, Manchester,  
and examined for Mycoplasma. Of the 250 swabs examined, eight yielded M. hominis in the absence of  
any other bacterial pathogens. In these cases the severity of the eye infection varied from "frankly purulent" to  
"slightly sticky". M. hominis could be found in vaginal swabs from 20 per cent. of antenatal patients in the  
maternity unit which dealt with about 2,500 deliveries a year. Thus infection occurred in only a small propor-
tion of babies whose mothers harboured the organisms in the vagina. [Apparently there was no control group in this study. It would have been interesting to know the incidence of *M. hominis* in babies with uninfected eyes and also how many cultures yielded *Mycoplasma* together with other bacteria.]

*P. Rodin*


**REITER'S DISEASE AND ALLIED CONDITIONS**


From the case records of 101 patients with Reiter's syndrome seen at the Hôpital Cochin, Paris, the authors selected for analysis those of 46 patients who had been followed up regularly. Of these, twenty had no spinal involvement and 26 had developed at some time involvement of the pelvic joints and/or spine. The signs of spinal involvement were both clinical and radiological in eighteen cases, clinical only in five, and radiological only in three. In thirteen of the 26 spinal involvement occurred during the first year of observation. Nineteen patients had sacroilitis, which was bilateral in fourteen, though frequently asymmetrical. The incidence of pain in the heel was about the same as in ordinary ankylosing spondilitis. Patients with Reiter's syndrome who had spinal involvement also had a greater incidence of other complications of this disease, including iritis. The literature is reviewed.

*Allan St. J. Dixon*
ABSTRACTS


PUBLIC HEALTH AND SOCIAL ASPECTS


MISCELLANEOUS


The authors, who have contributed to the literature several articles on genital herpetic infection, present a useful review of the subject. Clinical findings, epidemiology, relation of maternal to neonatal herpes, and relation to cervical dysplasia and carcinoma are discussed. Although the evidence that herpetic infection of the cervix is a precancerous condition is largely circumstantial, it is strong enough to warrant long-term follow-up of female patients known to have acquired genital herpes.

P. Rodin


Five cases of genital infections with Herpes virus hominis (HVH) in 7- to 12-year-old girls and one case in a 3-year-old boy have been observed over a 3-year period. HVH type 1 was isolated from the genital lesions and mouth in both the boy, who had no oral lesions, and in an 8-year-old girl with associated gingivostomatitis. The boy showed serological evidence of a type 1 HVH reinfection and the girl showed evidence of a primary type 1 infection. Laboratory studies on the other four girls confirmed a primary type 2 HVH infection.

On the basis of the virological, serological, and epidemiological information, it appears that genital infections with HVH in children can be either venereally or non-venereally transmitted. [Authors' Summary]


In this study from Philadelphia, Pennsylvania, the authors report attempts at isolation of viruses from the cervix in the cases of 1,899 women seen in cervical cytology clinics and 494 women seen in venereal disease clinics. Material for testing was obtained by placing the spatula used for endocervical scraping in a nutritive higher in the Reiter's disease group than in the control group. 58 patients were fully employable, 39 were able to do only light or part-time work, and three were completely incapacitated.

It is concluded that Reiter's syndrome resulted in permanent disability in about half the patients in this series. Rheumatoid arthritis did not develop as a consequence of the disease in this group. C. E. Quin

ANTIBIOTICS AND CHEMOTHERAPY


At Michael Reese Hospital, Chicago, the authors carried out skin tests with various penicillin products on twelve patients who had had severe reactions to administration of penicillin 2 days to 16 years previously and on one patient who was suspected of penicillin allergy but whose first severe reaction occurred on skin testing. In nine cases the reaction was immediate (2 to 15 min. after administration), being anaphylactic in eight and anaphylactoid in one; in three cases it was accelerated (2 hrs to 3 days after administration); and in one case it was delayed (10 days after administration). Scratch tests were carried out with benzylpenicillin, procaine penicillin, benzathine penicillin, phenoxymethylpenicillin, potassium phenethicillin, sodium naftilin, crystalline penicillin O (all in concentrations of 10,000 U/ml.), and penicillloyl polylisine (PPL) (50 × 10⁻³ molar). Patients with negative scratch test results were tested with PPL intradermally.

All thirteen patients reacted positively to at least one of the test substances. Of the nine immediate reactors, four were positive on skin testing with therapeutic penicillins only, four also with PPL, and one with PPL only. Of the three patients who had had accelerated reactions, two were positive on skin testing with PPL only and one with PPL and several other products. The patient who had had a delayed reaction gave positive skin reactions to benzylpenicillin and procaine penicillin only.

The author concludes that these findings indicate that skin testing for penicillin allergy is of definite value but that it appears likely that more than one antigenic determinant is involved in the various types of penicillin reaction. He considers that the test substances should include benzylpenicillin, PPL, and possibly other penicillin derivatives. (Of the ten patients who reacted to therapeutic penicillins, only one failed to react to benzylpenicillin.) Since scratch testing caused a severe anaphylactic reaction in one of his patients he advises that it should be carried out with caution.

H. Hersheimer


In this paper from the Departments of Physical Medicine and Rheumatology of The London Hospital, the authors describe 33 patients with a definite or suspected diagnosis ofBehçet’s syndrome, the aetiology of which is still unknown. Nineteen of the 24 patients in whom the diagnosis was definite had an arthritis, suggesting that it is a true component of the syndrome.

The authors group the manifestations into four major and six minor criteria. A definite diagnosis was made if at least three major criteria or two major and two minor criteria were present.

Although buccal ulceration was the commonest initial symptom, it was often the occurrence of a more serious manifestation, e.g. arthritis, eye, or skin lesions, that brought the patient initially to hospital.

The arthritis was polyarticular, inflammatory, not migratory or episodic, self-limiting, and non-destructive. The most frequently affected joint was the knee. The erythrocyte sedimentation rate was raised in thirteen of the nineteen patients. Either the latex test and/or the Waaler-Rose test was negative in all cases. Radiological abnormalities were seen in only two cases.

Buccal ulceration was present in all 25 cases, genital ulceration and skin lesions in nineteen each, eye lesions in seventeen, gastrointestinal lesions and thrombophlebitis in six each, cardiovascular and neurological lesions in one each. Other members of the family were affected in four cases.

The authors point out that their findings may be biased by the selection of patients attending a Department of Rheumatology. However, the presence of buccal ulceration in all cases makes it worth while looking for this symptom when the diagnosis of a case of inflammatory polyarthritis is in doubt.

C. S. Ratnatunga