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TREATMENT OF SEXUALLY TRANSMITTED DISEASES

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INTRODUCTION

There are a large number of sexually-acquired conditions that present to the obstetrician and gynaecologist as well as the physician in genito-urinary medicine. This paper concentrates on the treatment of women and neonates suffering from chlamydial, gonococcal and syphilitic infections.

CHLAMYDIAL INFECTIONS

The isolation rate for *Chlamydia trachomatis* varies from 2 to 60%, depending on the types of patients surveyed (table 1). The fact that a high proportion of women in whom chlamydia can be isolated are not attending departments of genito-urinary medicine should make gynaecologists and obstetricians continually vigilant for the possibility that this condition exists in their patients in an asymptomatic form.

The treatment of uncomplicated chlamydial cervicitis in the female patient is with tetracycline 250 mg q.d.s. for one to two weeks. In the pregnant woman tetracycline should be avoided in the second and third trimester and erythromycin stearate 250 mg q.d.s. for one to two weeks is recommended.

In the neonate, *Chlamydia trachomatis* can be transmitted by direct inoculation and gives rise to a conjunctivitis or pneumonia. Table 2 indicates the proportion of infants born to infected mothers who will develop various manifestation of chlamydial infection. A chlamydial ophthalmia neonatorum is now aproximately five times more common than a gonococcal ophthalmia. The obstetrician, even though remembering that these two conditions are not the commonest

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TABLE 1. — *Isolation rates for chlamydia trachomatis.*

	%
Gonorrhoea Contacts	30 - 60
Non-gonococcal urethritis contacts	30 - 35
Attending departments of genito-urinary medicine (excluding above groups)	2 - 17
Attending Family Planning/Well Women Clinics	2 - 7

TABLE 2. — *Chlamydial infection in the neonate* (Proportion developing infection if mother infected at term).

	%
Conjunctivitis	30 - 50
Pneumonia	10 - 20
Otitis media, Nasopharyingitis, Failure to thrive	< 10

cause of a sticky eye, should be aware that the incidence, particularly of chlamydial infection, has increased considerably and should be excluded. Chlamydial conjunctivitis should be treated by systemic antibiotics such as erythromycin ethylsuccinate 50 mg/kg body weight for 14-21 days. The eye can be bathed with saline, but there are no advantages in applying local antibiotics. Pneumonia, which is rarer than conjunctivitis, should be treated with the same dose of erythromycin.

Once a diagnosis of chlamydial ophthalmia neonatorum or pneumonia in the neonate is established, it is extremely important that both the mother and her sexual contacts are investigated to exclude chlamydial and any other concurrent sexually transmitted diseases that can occur. Sexually transmitted diseases often occur concurrently and full microbiological investigation must be undertaken (table 3).

TABLE 3. — *Routine investigations of female patients.*

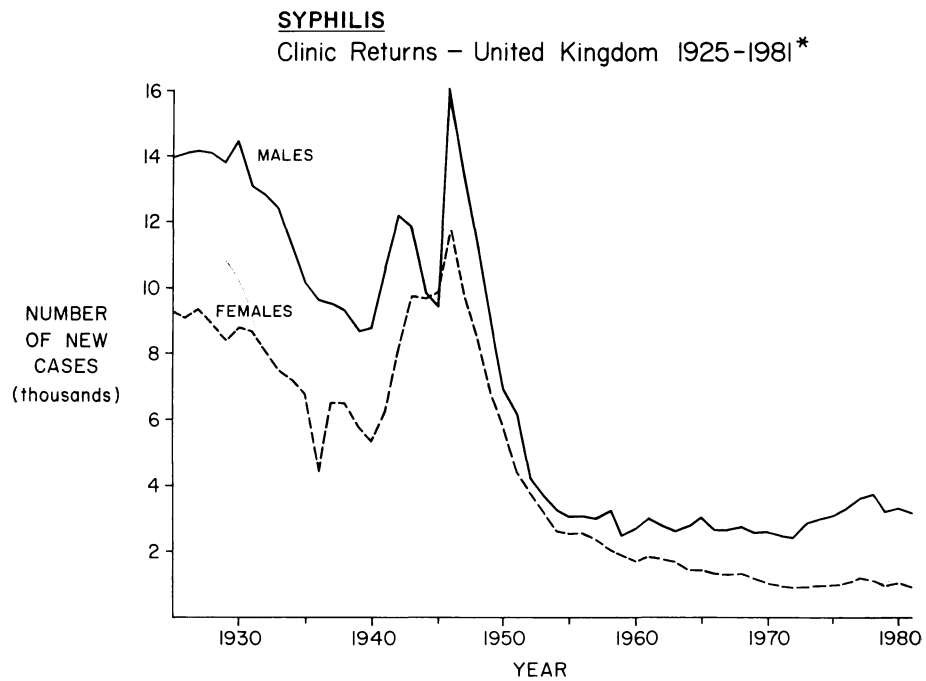
History and Physical Examination
Microbiological tests
Vagina (*Candida albicans, Trichomonas vaginalis, Gardnerella vaginalis*)
Cervix (*Neisseria gonorrhoeae, Chlamydia trachomatis*)
Urethra (*Neisseria gonorrhoeae*)
Bimanual pelvic examination
Urine tests
Serological tests for syphilis (V.D.R.L.+T.P.H.A.)

TABLE 4. — *Treatment of gonorrhoea.*

Parenteral Therapy	
	Procaine Penicillin 2.4 mega units plus 1 gramme Probenecid
	Benzyi Penicillin 5 mega units plus 1 gramme Probenecid
	Kanamycin 2.0 grammes
	Spectinomycin 2.0 grammes
	Cefuxorime 1.5 grammes plus 1 gramme Probenecid
Oral Therapy	
	Ampicillin 2-3 grammes plus 1 gramme Probenecid
	Co-trimoxazole 4 tabs. 12 hourly, 2 days

GONOCOCCAL INFECTIONS

The treatment of uncomplicated gonorrhoea in the female is usually with penicillin (table 4). The preferred parenteral preparation in the United Kingdom is procaine penicillin 2.4 mega units + 1 g of probenecid. Oral therapy can be given with ampicillin 2-3 g + probenecid. Some patients are allergic to penicillin



*Reports from N. Ireland included from 1958

Fig. 1.

Fig. 2.

and kanamycin 2 g or co-trimoxazole 2 tablets twelve hourly for two days can be used as an alternative.

Penicillinase-producing *Neisseria gonorrhoeae* are being seen more frequently in the United Kingdom and the drugs of choice if such an organism is isolated are spectinomycin 2 g or a cephalosporin such as cefuroxime 1.5 g + 1 g of probenecid. None of the drugs used in the routine management of gonorrhoea are contra-indicated during pregnancy.

Gonococcal infection in the neonate can result in a conjunctivitis, pharyngeal and rectal colonisation, usually without symptoms, and a disseminated gonococcal infection similar to that seen in adults. The most common manifestation of neonatal infection with the gonococcus is ophthalmia neonatorum. This condition should be treated with benzyl penicillin 50,000 units/kg body weight daily in divided doses for three days. As with chlamydial infections, it is extremely important that mother, father and other sexual contacts are examined to look for gonorrhoea and any other concurrent infections.

TABLE 5. — *Syphilis in pregnancy - Management in the neonate.*

Mother treated	: Examine. Serological tests (at six weeks and three months)
Mother not treated	: Examine Dark Ground Microscopy Serological tests (at birth, six weeks and three months) V.D.R.L., T.P.H.A. ± F.T.A.-Abs IgM
Treatment (if necessary)	Benzyl penicillin 50,000 units per kg body weight for 10 days

SYPHILIS

The incidence of syphilis in the United Kingdom has decreased rapidly. This, plus the screening of all pregnant women, has resulted in syphilis no longer being a public health problem (fig. 1). Currently, there are only 8 cases per year of congenital syphilis in children under 2 years in the United Kingdom and no deaths (fig. 2).

A pregnant woman in whom syphilis is diagnosed is likely to be suffering from early infectious syphilis, the treatment of which is aqueous procaine penicillin 600,000 units i.m. daily for 10 days. Fetal infection can occur at any time during pregnancy. If the mother is suffering from a primary or secondary syphilis (early infectious syphilis), the chances of the fetus becoming infected are virtually 100%. However, if the mother is suffering from late non-infectious syphilis, that is disease that she has suffered from for two years or more, the chances of the fetus becoming infected are extremely rare. Even if the mother has been treated during pregnancy, it is wise to examine the baby when born and carry out serological tests at six weeks and three months of age to be absolutely certain that the baby is not suffering from syphilis (table 5). Occasionally, if the mother is allergic to penicillin, it will be necessary to use an alternative drug during pregnancy, such as erythromycin. This drug does not cross the placenta well and it is usually considered wise to give the baby a course of penicillin at birth as a precaution.

If the mother has not been treated during pregnancy, the baby must be examined to look for features of congenital syphilis and dark ground microscopy performed on any appropriate material and serological tests performed at birth, 6 weeks and 3 months. Since passive transfer of antibody occurs, it is possible that a positive serological test in the baby at birth is due to this and not the baby's own production of antibody. It is therefore desirable, before making a definitive diagnosis of congenital syphilis, that the baby is followed up for 3 moths with a VDRL, TPHA and/or FTA. If the baby is suffering from congenital syphilis, treatment is with benzyl penicillin or procaine penicillin 50,000 units/kg body weight for 10 days.