ABC of Sexually Transmitted Diseases

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GENITAL HERPES

The problems associated with genital herpes

Increasing
No curative treatment
Recurrent
Breakdown relationships / psychosexual
problems / depression
? Cervical dysplasia / carcinoma
Neonatal infections

Genital infection with herpes simplex virus poses six problems. It is increasing rapidly, it is an unpleasant disease with no cure, and it is recurrent, the last two of which may lead to breakdown of relationships, psychosexual problems, and depression; it may be associated with cervical dysplasia and carcinoma, and, finally, it may cause neonatal and possibly fetal infections.

The latest figures (1981) show that 12 080 cases (rate 22 per 100 000) of genital herpes were seen in departments of genitourinary medicine in the United Kingdom. Even though these figures make it only the sixth most common sexually transmitted disease, it is the one that has shown the greatest increase in the past 10 years (168%). The number of cases and estimated rates in America, ranging from 87 to 217 per 100 000, far exceed those in Britain, and there the disease is considered to be of epidemic proportions. Certainly, more cases exist than are diagnosed in departments of genitourinary medicine and these will be managed in general practice or by gynaecologists and dermatologists.

The virus

Herpes simplex virus is a double stranded DNA virus which can be classified into types 1 and 2. Both types can cause genital infection even though type 1 usually causes lesions of the face, lips, and eyes. The prevalence of type 1 infection varies inversely with socioeconomic state. Type 1 and type 2 antibodies are thought to offer some cross protection, and the reduction in type 1 infection and antibody development during childhood in developed countries may be a factor in the increase in genital herpes in such countries.

The virus is transmitted by sexual intercourse or other physical contact. Orogenital contact with a partner with type 1 labial lesions may result in genital herpes. The illness may range from being entirely asymptomatic to being a severe systemic and mucocutaneous disease.

Primary infections

A first attack (primary herpes) of genital herpes usually presents with multiple painful genital ulcers after a short incubation period of under seven days. The amount of pain experienced by the patient varies depending on the number and site of the lesions. All the skin lesions, whether on the genitals themselves or on adjacent areas (buttocks, thighs, anus), evolve in the same way—starting with erythema, progressing to vesicles then ulcers, and finishing with crusting. The separate lesions often coalesce into substantial areas of shallow ulceration. These local lesions and viral shedding last about 12 days, with healing taking a further week, so that the whole illness may last for three weeks. In most primary attacks in women both the vulva and the cervix are affected (80-90% of cases). Nevertheless, single sites may be affected so that cervical lesions

Site	Symptoms					
	Pain	Dysuria	Retention	Constipation	Discharge	None
Penis (glans, coronal sulcus and shaft)	+					±
Urethra (male)	++	+	+		+	+
Anus/rectum	+		±	+	+	+
Buttocks/thighs/scrotum	+					
Vulva/urethra	++	+	±		±	±
Vagina	+				+	±
Cervix	+				++	+

may be present without vulval lesions and vice versa.

Inguinal lymphadenopathy occurs in most primary cases and about half of these patients actually complain of pain in the groin. Anorectal herpes can cause pain, discharge, and constipation. About one third of patients may have vague constitutional symptoms of fever and malaise and about 3-5% headache, photophobia, and viral meningitis. Retention of urine is a very rare symptom and in most instances is due to the patient's understandable reluctance to pass urine over already painful lesions; occasionally it is due to the virus affecting the sacral autonomic plexus, with a resulting meningomyelitis.

Recurrent infections

Recurrent infections are less severe and are not due to reinfection. Patients offer a variety of precipitating causes for their recurrences such as stress, sexual intercourse, menstruation, and climatic changes. Epidemiological data suggest that the mean time interval between initial and recurrent infection is about 120 days (range 25-360 days). Patients often notice prodromal symptoms of local tingling and paraesthesiae for 24-48 hours before the onset of lesions. The recurrent infection is not only milder but also shorter than the initial attack. There are fewer, but identical, lesions which heal more rapidly than previously. Systemic manifestations are rare.

Both initial and recurrent attacks of herpes may be asymptomatic in men and women. This raises considerable problems not only for the patient but also in relation to control of the disease within the community.

The diagnosis

Lesions affecting the vulva, cervix, and penis.

The clinical history and examination usually give the doctor a good idea of the eventual diagnosis. Nevertheless, the ulceration has to be differentiated from syphilis by dark ground microscopy. Other sexually transmitted diseases such as gonorrhoea, chlamydial infections, and trichomoniasis, which could have been contracted at the same time, must be excluded by full microbiological tests. Serological tests for syphilis should be taken as a base line, as should cervical cytology.

Even though women may complain only of vulval lesions, the cervix must be visualised since it is affected in 80-90% of cases of primary disease. The cervix may be ulcerated, frankly necrotic, or appear normal, and since in all instances the virus can be grown specimens should be taken from both the vulva and cervix in all patients. The definitive diagnosis of genital herpes can be made only by viral culture and isolation of the organism. Similarly, a homosexual patient who complains only of anal lesions should be examined with a proctoscope to ascertain the extent of the disease and have tests carried out for herpes and other sexually transmitted conditions.

Material for culture should be taken with a sterile cotton wool swab which is rubbed over the lesions so that adequate serum is obtained. If only vesicles are present, one or two of them may need to be punctured to obtain the specimen. This should be placed in a viral transport medium, refrigerated at 4°C, and sent to the laboratory on the same day. Since herpes is a chronic and incurable infection the diagnosis must always be confirmed by culture. It is unfair to the patient as well as to his or her sexual contacts to make such a diagnosis purely on clinical grounds. These may mislead, and a wrong diagnosis may create unnecessary anxiety for more than one person.

Routine management

Bathe lesions in warm saline
 Analgesics
 Treat secondary infections
 Admit to hospital if:
 Uncontrollable pain
 Urinary retention
 ? Meningitis

Antiviral agents and vaccines

Treatment

Ineffective - idoxuridine
 Possibly prove effective - acyclovir, vaccines
 Do not use steroids

Counselling and other problems

DO YOU SUFFER FROM HERPES ?

FOR LOCAL SELF-HELP AND INFORMATION

Please send a large SAE
 to:
 H.A. c/o Spare Rib
 27 Clerkenwell Close
 EC1 EOT

The treatment of genital herpes still remains unsatisfactory and no cure is yet available. The conservative palliative approach should be the basis of management. To some extent pain may be alleviated by bathing the lesions in warm saline (a teaspoon of domestic salt added to 0.5 l of warm tap water); this also helps to keep the lesions clean. If the lesions are particularly severe patients may be encouraged to sit in a warm bath to which salt has been added (three tablespoons). Patients often find that swishing the water around the lesions while sitting in the bath is soothing and that it is easier to pass urine. Pain may also be relieved by simple analgesics. Occasionally secondary infection occurs and should be treated with an appropriate antibiotic such as co-trimoxazole. This antibiotic has the advantage of being non-treponemoidal and will, therefore, not mask syphilis. Some patients are so ill, usually during the initial attack, that they require admission to hospital. The indications for this are uncontrollable pain, urinary retention, and possible meningitis.

Several agents have been introduced over recent years with claims that they are antiviral and change the disease process. The best known of these is idoxuridine, which is expensive and of no use in genital, as opposed to labial, herpes. Recently a specific antiviral agent, acyclovir, has been introduced which acts on a specific viral enzyme thus preventing viral replication. Studies using this drug in primary and recurrent attacks have shown that viral shedding, healing time, and duration of symptoms may be reduced but that the subsequent development of recurrences is not affected. At present oral acyclovir is useful in primary attacks, but further studies are required to ascertain how the agent should be used in recurrent disease. No effective vaccine presently exists; those being developed still need to be tested by randomised controlled trials.

Genital herpes is an emotive disease, particularly since it is recurrent, may interfere with sexual intercourse, and may be of aetiological importance in cervical carcinoma. Patients often need a great deal of advice and emotional support and since the condition is incurable, it is important that doctors at least fulfil these two functions. Patients should be warned that they are infectious when lesions are present; they should therefore abstain from sexual intercourse once lesions are noted or sooner if prodromal symptoms are present. Although asymptomatic viral shedding is possible in recurrent disease it is rare. The pragmatic approach above is therefore preferable to advising all patients to avoid sexual intercourse all the time. The sheath is not effective in preventing transmission; its use only gives a false sense of security. Patients should be reminded that other forms of intimacy and close bodily contact, apart from sexual intercourse, are not precluded. They often find it useful to talk to fellow sufferers, and the recent creation of the Herpes Association, acting as a self help counselling and information centre, is welcomed.

Two major concerns relating to genital herpes are the possible effects on the fetus and neonate and, in the long term, on the cervix. (The problems of in utero and neonatal infection will be covered in a later article.)

The possibility of an association between herpes simplex virus type 2 infections and cervical neoplasms has been the subject of controversy for nearly two decades, and the relation is not fully established or proved. As long as doubt exists caution is recommended. Patients who have had genital herpes should have cytology performed initially and then at yearly intervals. This approach has to be weighed against the possibility of patients becoming neurotic about cancer. This may be avoided by explaining the current evidence and that any changes found by yearly cytology would be early ones, which are highly amenable to cure.

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