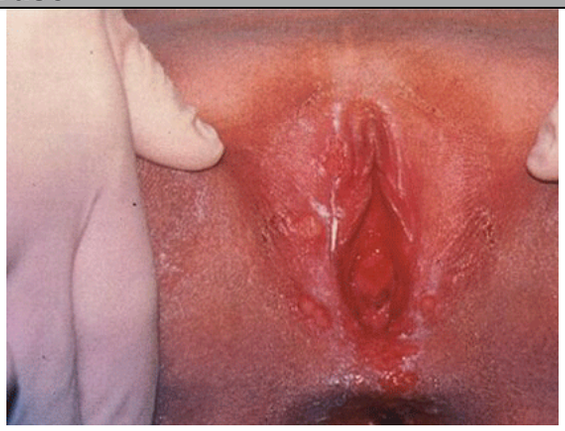
CASE 7

Short case number: 3_29_07
Category: Endocrine and Reproductive Systems
Discipline: O & G
Setting: Emergency Department-urban
Topic: Genital Herpes [SDL]

Case



You are the intern in the emergency department, Sydney Jones is 19 years old, she presents with severe pain and difficulty in passing urine. She has been unwell for a few days with fever and lethargy. She has had pain in her vaginal area and noticed some blisters and swelling yesterday. She has been unable to pass urine for the last few hours because of the pain and is now quite distressed. She has not had these symptoms in the past.

Questions

7. You suspect that Sydney has genital herpes, outline the clinical features of genital herpes and explain the underlying pathophysiology.
8. Examination reveals the presence of ulcerative lesions [as shown in the picture]. Outline the process of taking a swab for confirmation of the diagnosis.
9. Describe the HSV PCR test and explain the sensitivity and specificity of the test.
10. You clinically diagnose genital herpes, explain the natural history of genital herpes and outline the important information that you would explain to Sydney.
11. This is Sydney's first presentation of genital herpes; outline a management plan for the acute management including pharmacological and symptomatic treatment.
12. Sydney is discharged home a few days later. What advice would you provide regarding the management of future episodes?

ANSWERS

1. You suspect that Sydney has genital herpes, outline the clinical features of genital herpes and explain the underlying pathophysiology.

Clinical features → tingling in the skin followed by blister formation → painful ulceration → dysuria, cervical/urethral discharge, gingivostomatitis/proctitis, → single or multiple painful ulcers in the vulval and perianal region.

2. Examination reveals the presence of ulcerative lesions [as pictured]. Outline the process of taking a swab for confirmation of the diagnosis.

In Australia three types of diagnostic techniques are available: viral isolation, direct antigen detection, and PCR.

Virus isolation by culture was the "gold standard" and sensitive only when lesions are fresh and moist but requires optimal collection and transport conditions. Pathology laboratories no longer routinely use this method. Direct Antigen detection sample collection requires vesicle fluid and cells rubbed from the base of a lesion, using a dacron/rayon-tipped plastic swab. It has high sensitivity, when vesicles are present, however, sensitivity will fall as lesions heal.

3. Describe the HSV PCR test and explain the sensitivity and specificity of the test.

Genomic detection by polymerase chain reaction (PCR) is highly sensitive, fully automated and more rapid than viral culture or direct antigen detection. PCR allows simultaneous detection and differentiation of HSV-1 and HSV-2. It is more sensitive than other detection methods late in infection when the lesions have begun to crust.

4. You clinically diagnose genital herpes, explain the natural history of genital herpes and outline the important information that you would explain to Sydney.

Herpes simplex virus (HSV) can be a sexually transmitted disease. The incubation period before the onset of symptoms can vary from 2-20 days. Note however that the primary infection in most individuals is asymptomatic. A full sexual history should be taken from the patient sensitively and at an appropriate time to determine if there has been unprotected sex (no barrier method used).

5. This is Sydney's first presentation of genital herpes; outline a management plan for the acute management including pharmacological and symptomatic treatment.

There are three drugs currently available for the treatment of HSV: aciclovir, famciclovir and valaciclovir. All three drugs prevent replication of herpes simplex virus by inhibiting the synthesis of viral DNA. They are active only in herpes -virus infected cells, making them extremely safe and well tolerated.

Table 1: Treatment of Genital Herpes Simplex Infections

From antibiotic guidelines. July 2007

Initial Infections of Genital Herpes			
Diagnosis	Management Strategy	Drug	Dose
First Clinical Presentation	Treatment for Initial Infection	Valaciclovir	500 mg twice daily for 5-10 days
		Aciclovir	400 mg 3 times daily for 5-10 days

Symptomatic treatment → topical lignocaine jelly 2% locally for 1 – 2 days/ice packs and salt baths for relief. Hospitalisation may be required for urinary retention (may need catheterisation), meningism or systemic symptoms.
Monitor for secondary bacterial infection.

6. Sydney is discharged home a few days later. What advice would you provide regarding the management of future episodes?

Management strategies used for future episodes would depend on ongoing symptoms→ include supportive therapy only, episodic antiviral treatments (initiated at the first sign of prodromal symptoms or early lesions) and suppressive antiviral therapy (considered when more than six attacks a year).

Recurrences are self-limiting and generally cause minor symptoms however asymptomatic viral shedding form the cervix can occur without the women being aware of this in terms of relationships.

Recurrent Genital Herpes Infections			
Diagnosis	Management Strategy	Drug	Dose
Recurrent episodes	Episodic Treatment	Valaciclovir	500 mg twice daily for 3 days
		Famciclovir	125 mg twice daily for 5 days
		Aciclovir	400 mg 3 times daily for 5 days
	Suppressive Therapy	Valaciclovir	500 mg once daily or 1000 mg once daily if > 10 recurrences/yr
		Famciclovir	250 mg twice daily
		Aciclovir	200 mg 2 times daily 400 mg twice daily (considered in pregnancy)

There is also a risk of transmission to the foetus in pregnancy (miscarriage, preterm labour), so patients should consult their obstetrician about antenatal management of infections and management of the delivery. If primary infection and vaginal delivery-transmission as high as 50%.(25% eyes and mouth; 75% disseminated-70% mortality) If recurrent attack- transmission <5%. If active infection at time of delivery- may need caesarean section.

What do patients with genital herpes want from their clinicians?

- To be given accurate information;
- To be involved in decisions about the management strategies for their disease;
- To be provided with the best treatment reflecting current best practice;
- Not to be judged or patronised;
- To be referred to other experts when appropriate (eg. for counselling).