A young woman with vulvovaginal and urinary symptoms

Commentary by
MELISSA KANG MB BS, MCH

What are the most important steps in helping this young woman with genital symptoms, who recently commenced sexual activity? This article describes an approach to assessment and the role of STI screening in this clinical context.

MedicineToday 2013; 14(12): 58-59

© GETTY IMAGES/BSIP/UIG

CASE SCENARIO

Nisha, aged 17 years, presents with a mixed picture of vaginal/vulval and urinary symptoms that started two weeks ago. She recently commenced sexual activity with her 18-year-old boyfriend. A dipstick shows leucocytes.

What are the important steps in the assessment of this patient, and what investigations should be considered?

DISCUSSION

The most important first step in helping this young woman involves taking a careful history. The most common genital symptoms in women are abnormal vaginal discharge and genital itch, but these may coexist with dysuria and/or dyspareunia. A sexual risk assessment is important, but a sexually transmitted infection (STI) is only one possible cause. A genital examination in the presence of symptoms is also indicated. The distinction between an assessment of symptoms and an asymptomatic STI screen is also important.

Dr Kang is Senior Lecturer, Department of General Practice, Sydney Medical School – Westmead, University of Sydney. She is also Senior Career Medical Officer, Youth Health Western Sydney Local Health District, and Senior Career Medical Officer (temporary), Sexual Health, Nepean Blue Mountains Local Health District, NSW.

History

A directed history should be taken, focusing on Nisha's presenting symptoms and noting the following:

- vaginal discharge – any change from physiological discharge (such as quantity, colour, odour), relationship to menstrual cycle
- itch – onset, association with discharge, presence of a rash or skin lesions
- dysuria – cause (urethral or due to urine coming into contact with irritated genital skin), associated frequency, urgency, loin pain or fever
- genital skin changes – ulcers, erosions or lumps (note onset, duration and association with pain or itch), skin conditions such as eczema and psoriasis
- dyspareunia – location (pain near the vaginal opening or deep pain)
- other symptoms – fever, enlarged lymph nodes, abdominal pain, joint pains.

Downloaded for personal use only. No other uses permitted without permission. © MedicineToday 2013.

Other relevant points in the history include the patient's age at menarche and details of her menstrual cycle, including her last menstrual period and contraceptive use. A general medical history should be taken, and should include recent use of medications for current symptoms (e.g. antibiotics and any topical treatments). Drug allergies should be recorded.

A careful sexual history should be taken. Start by explaining to Nisha that you would like to take a sexual history to help guide investigations. Remind her about patient confidentiality and acknowledge that the questions can be personal.

- When was the last time Nisha had sex? Did it involve vaginal penetration, oral sex or anal sex? Was a condom used throughout intercourse?
- How long has Nisha been sexually active (you already know it is 'recent')? How many sexual contacts has she had (including oral sex)? Were these male, female or both?
- With sexual partner(s) involving penetration, was a condom used each time?

As Nisha has just commenced sexual activity, gently enquire about her feelings about sex, her relationship and her partner. Many young women find early experiences of intercourse uncomfortable, painful and unsatisfying.[1,2] Ask about feelings of pressure or coercion and concerns about her sexual activity in the context of parental, community and cultural attitudes. Enquiring about unwanted sex and sexual assault is also important. These considerations can apply to men and women of any age but may be particularly relevant in a young woman.

Examination

A genital examination is indicated because Nisha has symptoms. She must consent to it, and a chaperone should be offered. Explain why the examination is important and what it will involve.

Begin by palpating the abdomen. Note any tenderness, organomegaly and inguinal lymphadenopathy.

Inspect the mons pubis and outer vulva, looking carefully at the skin for rash or evidence of dermatitis or other skin conditions, ulcers, folliculitis (if pubic hair has been removed), swelling or lumps. Separate the labia majora and minora and examine for erythema, swelling, ulcers or erosions, lumps or fissures; look for and then wipe away any discharge in the introitus; assess the Bartholin's glands for enlargement. Inspect the perianal region.

Gently introduce a speculum and inspect the vaginal walls and cervix. Note the presence of inflammation, mucosal lesions, discharge and odour. After removing the speculum, inspect the urethral opening for swelling, discharge or lesions.

Investigations

Careful assessment of each presenting symptom is important because specific features will guide investigations.

If an ulcer, erosion or fissure is present, perform a herpes simplex virus (HSV) polymerase chain reaction (PCR) test and dry swab placed into Amies or Stuart's medium for candida microscopy and culture. There is no place for HSV serology as a diagnostic or screening test.

A vulvovaginal swab should be performed for combined chlamydia and gonorrhoea PCR testing (more sensitive than endocervical swab).[3] Gonorrhoea culture and sensitivity are important prior to treatment for gonorrhoea, but not as a substitute for initial testing by PCR (which has higher sensitivity). If discharge is present, a separate vaginal swab is required for microscopy for bacterial vaginosis, candidiasis and trichomoniasis. If trichomoniasis is suspected, a vaginal swab for PCR is now possible through many laboratories.

If Nisha finds the speculum examination distressing then a blind vaginal swab is a reasonable alternative for PCR and microbial culture and sensitivity testing. Furthermore, urine PCR is as sensitive and specific as vaginal swab.[4]

If dysuria is present, exclude a urinary tract infection as well as the STIs mentioned above. Ideally, two urine specimens should be collected (first void and midstream) and the patient instructed on how to do this. However, the sensitivities of commercial PCR tests for chlamydia and gonorrhoea are so high that if only a midstream urine specimen is available then it is reasonable to send this for PCR. Mixed bacterial growth on urine culture is very unlikely to represent a urinary tract infection.[5]

Other considerations

Before collecting specimens, ensure that Nisha is aware of the implications of a positive result, including contact tracing processes.[6] Also discuss payment of pathology (e.g. request bulk billing) and the best way to contact her confidentially for results.

A 'full STI' check is probably unnecessary, unless there are features in Nisha's history that suggest otherwise. For example, serology for HIV and syphilis is probably not indicated. Check whether she is immunised for hepatitis B and human papillomavirus (HPV).

Useful online resources for GPs from the NSW STI Programs Unit include:

- a contact tracing tool (http://www.stipu.nsw.gov.au//content/Document/GP Contact Tracing Tool.pdf)
- an STI testing tool (http://www.stipu.nsw.gov.au/icms_docs/147045_GP_STI_Testing_Tool_2012.pdf).

Finally, this is a valuable opportunity to discuss contraception (including emergency contraception) and condom use, and also to give Nisha advice about preventive health checks such as Pap smears and annual chlamydia screening. MT

REFERENCES

A list of references is included in the website version (www.medicinetoday.com.au) and the iPad app version of this article.

COMPETING INTERESTS: None.

Downloaded for personal use only. No other uses permitted without permission. © MedicineToday 2013.

MedicineToday 2013; 14(12): 58-59

A young woman with vulvovaginal and urinary symptoms

Commentary by **MELISSA KANG** MB BS, MCH

REFERENCES

1. Kang M, Cannon B, Remond L, Quine S. Is it normal to feel these questions...?: a content analysis of the health concerns of adolescent girls writing to a magazine. Fam Pract 2009; 26: 196-203.
2. Bradshaw C. Vaginal symptoms. In: Russell D, Bradford D, Fairley C, eds. Sexual health medicine, 2nd ed. Melbourne: IP Communications; 2011.
3. Schoeman SA, Stewart CMW, Booth RA, Smith SD, Wilcox MH, Wilson JD. Assessment of best single sample for finding chlamydia in women with and without symptoms: a diagnostic test study. BMJ 2012; 345: e8013.
4. Sexual Health Society of Victoria. National management guidelines for sexually transmissible infections, 7th ed. SHSOV; 2008. Available online at: http://www.mshc.org.au/Guidelines/NationalManagementGuidelinesForSTIs/tabid/278/Default.aspx (accessed November 2013).
5. Munro R, Chambers I. Common sense pathology: laboratory diagnosis of UTI [joint initiative of 'Australian Doctor' and The Royal College of Pathologists of Australasia]. Sydney: Reed Business Information; 2002. Available online at: http://www.rcpa.edu.au/Library/Publications/Common-Sense-Pathology.htm (accessed November 2013).
6. Australasian Society for HIV Medicine (ASHM). Australasian Contact Tracing Manual, 4th ed. Sydney: ASHM; 2010. Available online at: http://ctm.ashm.org.au (accessed November 2013).

Downloaded for personal use only. No other uses permitted without permission. © **Medicine**Today 2013.