Guidance on taking a vulval 'punch' biopsy

This article covers the process of taking a vulval punch biopsy. The intended audience are trainees in gynaecology, dermatology, sexual health, GPs and nurses. It does not cover the incisional, excisional or shave biopsies.

What is a vulval biopsy?

- A minor procedure where a small piece of vulval skin is removed to support making a clinical diagnosis.

Where to take a biopsy from the lesion

- At the side or centre of the lesion.
- Remember, there are no diagnostic features in a biopsy that is largely keratin. Keratin represents dead skin only.
- Avoid taking biopsies from the base of an area of ulceration. For an area of ulceration, it is preferable to take a biopsy at the junction of the normal and ulcerated skin.

What is an adequate biopsy for vulval disease?

- A biopsy that is deep enough to include the preserved epidermis, dermis and subcutaneous tissues. On a 4mm punch biopsy with its circular blade this would be around 5mm deep. Remember, specimen shrinkage will occur. This can be up to 25% for a 4mm biopsy.
- Avoidance of crush artefact - avoid crushing the tissue with the tooth forceps. This can damage the epithelium. Consider using a needle or a skin hook (see fig 1)

Figure 1 – histological cross section of tissue comparing the different types of biopsies

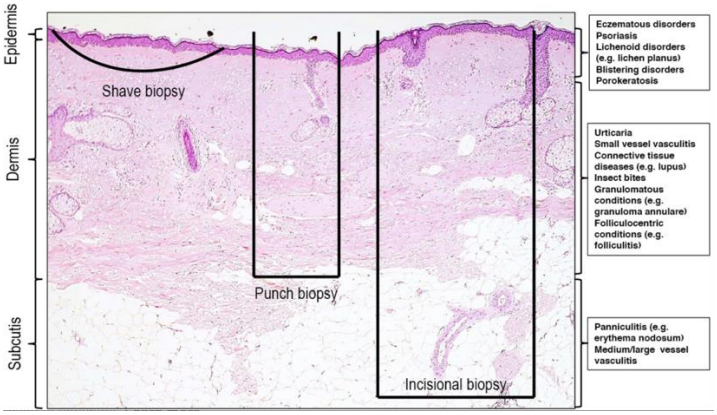

Figure 2 – 4mm punch biopsy

What are the different types of vulval biopsy?

- Punch biopsy. A cylindrical piece of skin usually 4mm in diameter.
- Incisional biopsy. A piece of skin that has been cut out usually in an ellipse.
- Shave biopsy. Removal of the top of the epithelium. Often carried out by a dermatologist and not usually recommended for vulval disease.
- Mapping biopsies. Usually carried out under a general anaesthetic. Multiple punch biopsies are taken to assess a large area of vulval disease.
- Excisional biopsies can be carried out for small lesions. This is when the whole lesion is removed. The disadvantage of this procedure is when a cancer has been removed and the patient requires referral to an oncologist for additional treatment. Sometimes the scar can be faint and re-excision difficult.

Indications for a vulval biopsy?

- Suspected cancers, pigmented lesions, inflammatory lesions, persistent ulcerated lesions and chronic skin disorder

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BSSVD
The British Society for the Study of Vulval Disease

Equipment needed

- Gloves, drapes and antiseptic
- Local anaesthetic e.g. dental syringe with xylocaine and adrenaline or insulin syringe and needle
- Vulval biopsy set (to include scissors, needle holder, non-toothed forceps)
- 4/0 or 5/0 Vicryl Rapide suture on a curved needle
- 4mm punch biopsy, or blade
- Green needle
- Silver nitrate sticks. These can be used to ensure haemostasis when a suture is not possible e.g. a friable cancer
- Labelled formalin pot and form

Prior to the procedure

- Take written consent and check the patient is not on blood thinners

Carrying out the procedure

- Following skin preparation, a drape is placed.
- The local anaesthetic is administered to the dermis. This should takes about a minute for the anaesthetic to take effect. Sometimes it is worth waiting longer to get the full adrenaline effect in relation to vasoconstriction and reduced bleeding.
- The use of a circular blade that is rotated down perpendicularly through the epidermis and dermis clockwise and counter clockwise, into the subcutaneous fat, taking a 4mm cylindrical core of tissue sample. Once the instrument has penetrated the dermis into the subcutaneous fat it is removed.
- The cylindrical skin specimen is elevated with the needle held in the non-dominant hand. Scissors held in the dominant hand cut the specimen free from the subcutaneous tissues. The cut is made below the level of the dermis. The wound is closed with a suture.
- Ensure with the assistant that the specimen is placed in the formalin pot and that the pot is adequately tightened to avoid leakage.

Completion of the histology form

- As much history as possible is helpful for the pathologist which should include the anatomical site of the biopsy, the type of biopsy, a brief clinical history and comment on morphology.

Follow-up

- Results management. It is the responsibility of the clinician to action the pathology result and the make an ongoing plan with the GP and the patient.

Patient advise

- If the area bleeds, press it firmly for 10 minutes with the swabs provided. Provide the patient with contact details.
- Keep the area dry for 24 hours.
- Keep the area clean using water 2-3 times per day.
- Expect some soreness. Option to take painkillers such as paracetamol or ibuprofen as needed.
- If the area suddenly becomes more painful or red and inflamed, this could be a sign of infection and you should see a doctor.
- It is normal to expect a small white scar to develop at the site.

Other tips

- If you are not sure about a report please contact the pathologist. A clinico-pathological correlation may be required. This is when a clinical scenario is reviewed alongside the biopsy result. This process can include a direct discussion between the pathologist and the clinician.