Skin Biopsy

**PRINCIPLE**

Microfilariae of *Onchocerca volvulus* and *Mansonella streptocerca* do not appear in the blood stream. Examination of small pieces of skin tissue or aspiration of tissue fluid from a nodule may demonstrate microfilaria. Bloodless skin snips should be submitted in a small volume of saline as soon as possible.

**SPECIMEN**

A skin snip in a concave well slide with saline added.

**REAGENTS**

0.85% normal saline

**SAFETY**

Microfilaria require passage through their insect vector before they become infective, therefore the sample cannot produce a filaria infection from a sharps stick.

**PROCEDURE**

1. Place the skin snips immediately in a drop of saline and cover and place in a moist chamber so the specimen will not dry out.

2. Examine under low power for microfilaria when first received and at time points of 1, 4, & 24 hours.

3. If microfilaria are found capture and stain with haematoxylin (see following procedure)

**QUALITY CONTROL**

- Do not subject the sample to extremes of temperature or let it dry out.
• Ensure that the microscope has been calibrated in the last year and that the results of the calibration are displayed on the microscope base.
• See QC comments associated with haematoxylin staining.

REPORT

Report as negative after 24H or if positive then any microfilaria or other parasites seen. Speciation requires haematoxylin staining of the observed microfilaria (see Hematoxylin Stain for Microfilaria).

LIMITATIONS OF PROCEDURE

• Microfilaria will not be evenly distributed in all parts of the skin, therefore a skin sample may be from a region that does not contain microfilaria.
• The size of the skin sample may be too small to detect infections with low numbers.

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REFERENCES
