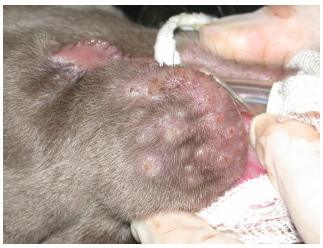
Sticky tape Sampling Protocol

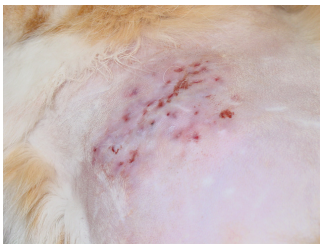
Materials:

Good quality clear adhesive tape (similar to width of microscrope slides)
Microscope slides
Pencil
Red and purple Diff-quik stains - no fixative (use the dirty staining station)
Immersion oil

Sample collection

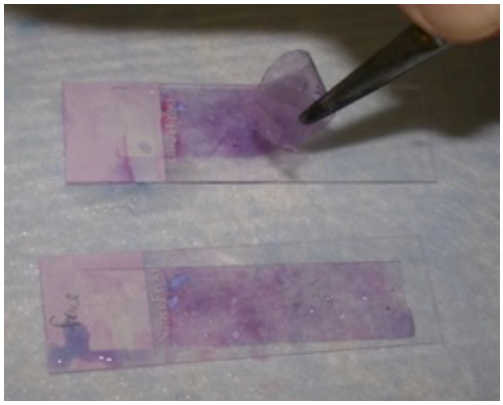
1. Tear off a section of tape just shorter than the length of a micriscope slide.
2. Repeatedly push the centre of the adhesive side of the tape onto the affected area of skin until the tape looses its adhesiveness.
   a. For papular lesions, use your fingernail (wear gloves) to try to exude some of the papular contents prior to sampling.
   b. For wet skin, moist or oozing lesions, gently blot dry with a dry swab prior to sampling.
3. Gently affix the sample to a microscope slide and label in pencil with patient name and collection site.





Staining

1. Stick the tape to the end of the microscope slide and create a 'loop' by sticking the end of the tape back to itself so that the adhesive side of the tape faces outwards.
2. **Do not use fixative** as it disrupts the adhesiveness of the tape and makes samples more difficult to assess.
3. Dip the slide with the loop of tape into the eosinophillic (red) Diff Quik stain for 5 -10 one second dips.
4. Repeat for the basophillic (purple) Diff Quik stain - 5-10 one second dips.
5. Rinse off excess stain. Use forceps to carefully uncurl tape loop and affix the adhesive tape gently to the slide.
6. Gently dry the slides with lens tissue before examining under the microscope.



Above: Uncurling sticky tape loops with forceps after staining.

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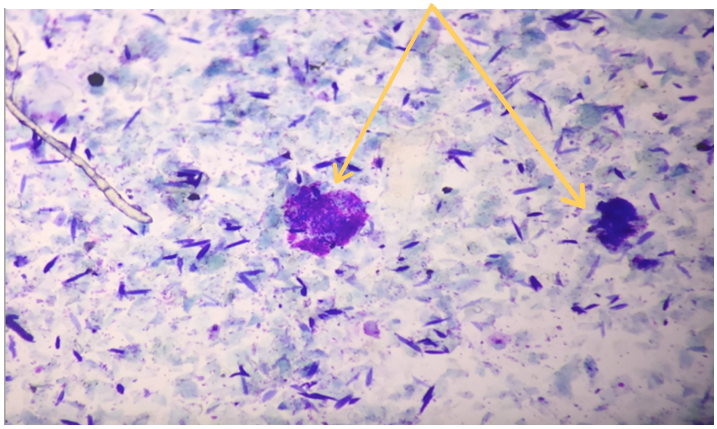
Assessing under the microscope:

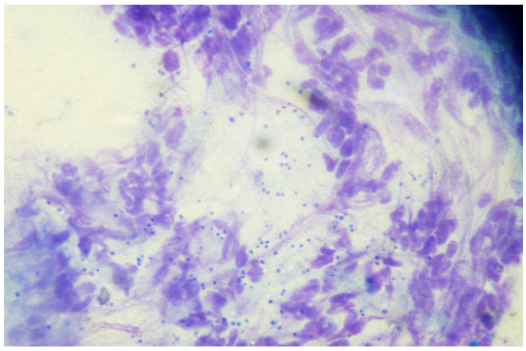
1. You don't need to use a coverslip due to the tape performing the same role. You do still need to use immersion oil to view the sample under the 100x lens.
2. Examine your sticky tape sample initially on the 10 x objective, moving in to the 100 x objective to focus on areas of interest.
3. Look for foci of neutrophils (see below) to identify areas for more detailed investigation.
4. The presence of bacteria (most often cocci) or yeast in conjunction with foci of neutrophils in the presence of skin lesions supports a diagnosis of bacterial or fungal skin infection.

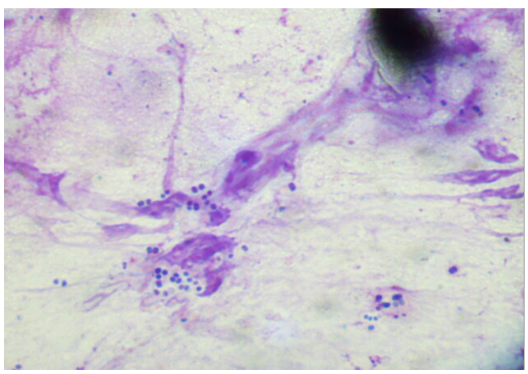
Other tips:

1. You can store unstained sticky-tape samples for up to a week (ideally examine within 24-48 hours), however they need to be examined as soon as possible after staining.
2. Always collect a sticky tape sample on the same day as a culture sample as the cytology will help you to interpret your culture results.

Below: Foci of neutrophils (yellow arrows) among background of keratinocytes (x 4)







Page right: Foci of neutrophils on high power. Cocci bacteria among degenerate neutrophils (x 100)

** To view a video tutorial for sticky tape samling go to www.amrvetcollective.com/home/continuing-education/