

# the ITCH

## Dermatology Team

Department of  
Small Animal  
Clinical Sciences

Alison Diesel,  
DVM, DACVD

Adam P. Patterson,  
DVM, DACVD

Amanda Friedeck,  
BS, CVA

Department of  
Veterinary Pathobiology

Joanne Mansell,  
DVM, MS, DACVP

Aline Rodrigues Hoffmann,  
DVM, MS, PhD, DACVP

## Clinical Appointments

Small Animal Dermatology  
979-845-2351

Equine Dermatology  
979-845-3541

For more  
information, please  
visit our website at:

[vetmed.tamu.edu/  
services/dermatology](http://vetmed.tamu.edu/services/dermatology)



Figure 1.

## Oral Allergy Drops

We are now offering sublingual immunotherapy (oral allergy drops) to our patients/clients. For those patients or clients that do not like 'needles' or 'injections', this oral route of administration is another option to consider. Oral allergy drops appear to be of equal efficacy to the standard 'allergy injections,' but these drops must be given daily. The *new* and *old* options of immunotherapy administration allow us to better tailor therapy to the temperament of the patient and lifestyle of the client. Ultimately, compliance and success will hopefully be improved.

## Tape Cytology: Simple, Practical, Effective

Are you using tape cytology on your dermatological patients? If not, why? Tape cytology can be very practical and an efficient means of examining the microenvironment of the skin when superficial infection is suspected. Let us show you (and your technical staff) why and how we perform and interpret tape cytology. Indeed, it is so simple that we sometimes forget that this is a chargeable diagnostic test.

### Why?

Acetate tape cytology is used to identify bacteria and yeast on the skin surface. Occasionally, it can be used to search for surface cutaneous parasites (e.g., lice, *Cheyletiella* spp, surface dwelling *Demodex* mites). This discussion will be limited to the former.

### What?

Areas of affected skin that are difficult to reach with a glass slide are usually ideal for acetate tape cytology (e.g., nasal fold, lip fold, perivulvar fold, paw webbing), but other body areas can be sampled too. Additionally, tape cytology is useful for 'drier' lesions that would not stick to a glass slide with conventional direct impressions. Preferred lesions to sample would be those typified by infection such as erythema, scale, crusts, epidermal collarettes, papules, and lichenification. Many of these lesions will be associated with pruritus. See figures 1-3.

*Figure 1: An allergic dog with pruritic erythematous pododermatitis. Acetate tape can easily fit in the paw webbing allowing for cytological examination. The strip of tape used should not be longer than a glass slide. Tape cytology revealed secondary infections (cocci and yeast).*

### How?

We prefer to use clear, single-sided, prescription tape that is no wider than the width of a glass slide. However, double-sided clear tape or commercially available slides fixed with tape can also be used. The latter may be difficult to sample hard to reach body areas since the tape is already affixed to the slide. With our preferred tape, a strip no longer than a glass slide is used to sample representative lesions with the sticky side down towards the skin. Multiple strips of the skin are sampled trying to get the best sample in the middle of the tape. Next, the tape is partially fixed at one end with a clothespin, sticky side down, to a labeled glass slide for staining. Only the last step of Diff-Quick/Quik (purple) is used to stain the slide. After 1 minute, the slide (with tape fastened by the clothespin) is rinsed under a slow stream of running tap water. Excess stain underneath the tape is removed by lightly pressing on the tape with a disposable towel. This step also ensures the tape is sticking to the slide. See figure 4.



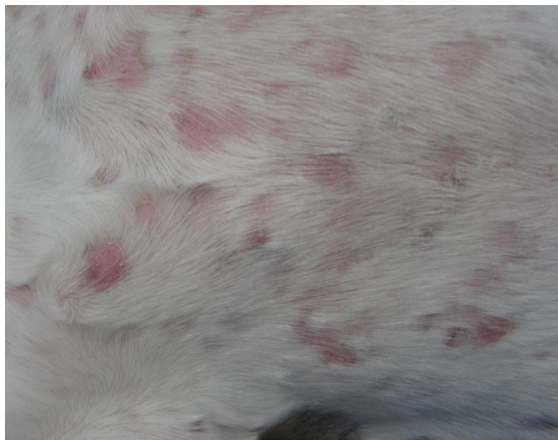


## Did you know?

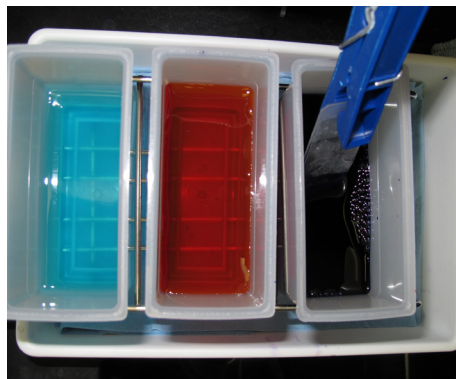
- The VMTH has two full-time Diplomates of the American College of Veterinary Dermatology (Dr. Adam Patterson, above, and Dr. Alison Diesel, below) specializing in the diagnosis and treatment of skin, ears, claws, and allergy in both small and large companion animals
- Two dermatopathologists who are Diplomates of the American College of Veterinary Pathologists work side-by-side with the clinical dermatologists to diagnose skin disease
- Downloadable referral and dermatological history forms along with other information is available to you and your clients at [vetmed.tamu.edu/services/dermatology](http://vetmed.tamu.edu/services/dermatology)
- You can send skin biopsies from your practice for interpretation by our dermatopathologists by following the instructions at [vetmed.tamu.edu/vtpbl/professional-services/dermatopathology](http://vetmed.tamu.edu/vtpbl/professional-services/dermatopathology)



*Figure 2: An allergic dog with erythematous to partially hyperpigmented lichenification in the right axillary space. Acetate tape cytology is a good technique for organism recovery when the skin is rather dry as the tape adhesive strips the cutaneous surface. Yeast was documented with this cytological technique.*



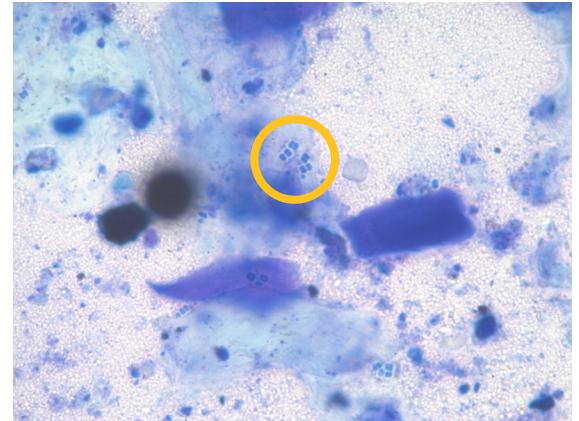
*Figure 3: A dog with erythematous, partial to complete, patchy (moth-eaten) truncal alopecia with epidermal collarettes suggestive of superficial pyoderma. Dry scale and crusts can be tape stripped to examine the cutaneous microenvironment. Cocci, likely *Staphylococcus pseudintermedius*, were seen cytologically.*



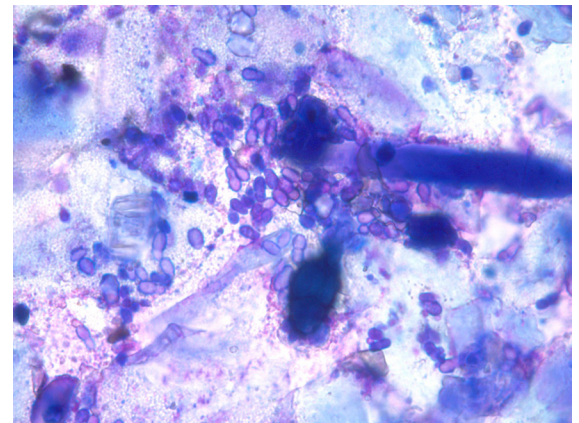
*Figure 4: When using acetate tape to scan for typical superficial microorganisms of the skin, only use the last (purple) step of Diff-Quick/Quik (Romanowsky stain type) since the first step will remove the tape's adhesive and cellular detail is not needed with the second (red) stain. Acetate tape cytology is not ideal when cellular detail (e.g., inflammatory or neoplastic cells) is needed. Typically, tape should be stained for at least 1 minute.*

## Interpretation.

The slide is scanned on low magnification (10x) to find an area rich in stained (purple) material. Using the tape as a coverslip, the slide is examined using the oil objective to search for bacteria and/or yeast. The finding of any microorganisms must be interpreted in light of the clinical picture, but are usually considered a significant finding if recovered from a representative lesion. See figures 5 and 6.



*Figure 5: Acetate tape cytology depicting diploids, tetrads, and clusters of cocci around basophilic keratinocytes/corneocytes. Note the poorly stained stippling appearance in the background – this is the adhesive of the tape. Melanin may be in the shape of cocci, but it does not take up (purple) stain; it will be black, brown, or bronze in color and is within keratinocytes.*



*Figure 6: Acetate tape cytology depicting a group of partially to completely-stained unipolar budding yeast with surrounding keratinocytes/corneocytes. The organisms resemble *Malassezia* spp.*

