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# FACTORS THAT AFFECT CELLULAR TYPES REVEALED IN THE CYTOLOGICAL EXAM OF SKIN SCRAPPINGS IN DOG

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SUMMARY

**Introduction**. Any pruritic, scaly, or alopecic animal should be evaluated by cytologic exams. Skin scrapings, aspirations, impressions, ear swabs and tape preparations are different techniques to obtain cytologic samples. **Material and method**. We used a number of 35 patients with different skin lesions, spread on different body parts. 4 slides were taken for every patient. The surface of the skin was scraped gently and superficially with a scalpel blade in the direction of hair growth. The debris collected on the blade was applied to a microscope slide and spread with the blade. Stain: We used four main staining technics. 1. lactophenol blue 2. A modified Wright's stain (Hemacolor, Merck). 3. Giemsa solution. 4. Motor oil dripping. **Result and discution.** The tests revealed different results, after technic and lesion type. The lactophenol blue coloured the cells and the nuclei in blue. The fungal elements were coloured dark blue. By this technic we couldn't distinguish neutrophils or other blood cells. The hemacolor technic revealed inflammatory cells such as neutrophils (which may have passed through the epidermis in response to a superficial infection), epithelial cells, cocci, rods, macrophages, mites. The Giemsa technic revealed neutrophils (nuclei-violet, cytoplasma-violet), epitelial cells (nuclei-violet, cytoplasma-blue), bacteria, and mites. The oil imersion technic let us to see keratinocytes (not distinguishing nuclei), mycotic structures, and mites. In patients with flea allergy, contact dermatitis and immunological disorders we saw neutrophiles, eosinophiles, and fibroblastic cells. In patients with mites problems we saw neutrophilic, eosinophilic and macrophagic aglomerations, sometimes bacterian aggregates. In those with hormonal problems, we saw bacterian presence, coci and bacilli, and some neutrophils. In patients with mycotic infestation, no cytologic changes were observed. In the metabolic disordered patient, we saw nucleated keratinocytes, neutrophils and hairshafts. **Conclusions.** The cellular population we can see in the microscope depends on colouring technic. The most covering was the Hemacolor technic, but it is necessary to try more than 1 technic for a better result. The best solution is to have a multiple colouring kit, and to use at least 2-3 technics for better diagnostic.

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