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Masses and skin tumors represent a heterogeneous group. Establish the precise nature of a nodule remains the only accurate method to determine an adapted treatment. Skin masses can arise following trauma, be secondary to an anatomical abnormality, be sterile or infectious and, can be benign or malignant tumor in origin. The clinical aspect can be sufficient to establish a diagnosis however, in the majority of the cases, diagnostic tests like a fine needle aspiration biopsy (FNA) an impression smear or a skin biopsy (« punch biopsy technique » or elliptical surgical excision biopsy) for histopathology or culture are warranted.

**Do we have to remove all the skin masses?**
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Clinical examination allows the diagnosis for some tumors (Sebaceous Adenoma/Hyperplasia, oral papillomatosis, squamous cell carcinoma located on the ear pinna of the cat, some skin tags, apocrine cysts, and keratoacanthomas...). However we should always remain humble faced to our clinical judgment.

To confirm our clinical impression FNA and its cytological evaluation is always the first clinical test to perform.

**Clinical approach**
This classification is non conventional and refers only to the clinical aspect of the nodules, their distribution on the body and, is only useful for tumor nodules.

When they appear like a firm skin swelling, non adherent to the underlying tissue, they cannot be differentiate based on their clinical aspect. The cytology should help the clinician or the surgeon in decision making.

Clinical examination is not sufficient to determine the right nature of the nodule and once again, cytology is needed. Numerous « button like nodules » are in fact formed by discohesive round cells. Among those, mast cell tumors, plasma cell tumors, canine histiocytomas, melanomas are not very difficult to diagnose. However, in some instances, those tumors don’t present the classical aspect and a definite cytological diagnosis remains impossible. Some lymphomas, mast cell tumors with few granules, some plasma cell tumors and histiocytoma or reactive histiocytosis can be misdiagnosed if the decision is only based on cytology. The histopathological examination of biopsy specimen is warranted for a definite diagnosis. A wide margin excision biopsy is also a common advice if the diagnosis is doubtful.

Some « exophitic » skin tumors are clinically polymorphs: pedunculated, pear shaped, cluster shaped, plaque shaped... their clinical diagnosis is difficult and requires further tests.

Some nodules ulcerate quickly: squamous cell carcinomas, skin metastasis of carcinomas, cutaneous lymphoma and the skin tumors traumatized either by the animal itself or by the environment. Impression smears are in those case an accepted alternative to obtain another good method cytology samples. However blood contamination originating from the ulcer’s bed may complicate the cytology reading.

Digits nodules represent often a different origin. It is however important not to never forget the predisposition of large breed black colored coat dogs for nail bed carcinomas. Digits are also a common site for metastasis of bronchial carcinomas in cats. FNA remains the first ancillary test to be performed. Aggressive nail bed tumors have to be diagnosed early to allow rapid amputation of the digit. A complete staging is needed before surgery.

Perianal tumor nodules can be observed at diffe-rent locations: anal sacs (SCC of the anal sacs, (adeno)-carcinomas of the apocrine glands of the anal sacs), circumanal gland tumors (adenomas and aden-ocarcinomas) or other perianal nodules. Paraneoplastic hypercalcemia is a common side effect with perianal adenocarcinoma. This hypercalcemia occurs following the production of a PTH-like hormone secretion. However, a paraneoplastic hypercalcemia can also be observed in conjunction with many other tumors.

**Diagnostic Tests**
**Direct smears**
When dealing with exsudative, excoriated nodule a direct impression smear for cytology is useful to observe...
yeasts, bacteria, inflammatory and like tumor cells.
• Press the glass slide against the lesion or against the inferior surface of a crust... Allow to air dry or fix with heat. In case of an intact pustule, you can remove its roof with a fine needle and make an impression smear.
• Stain the smear with direct stains and examine it under the microscope.

Fine Needle Aspiration (FNA)
This technique is recommended to collect material from nodules or tumors. Do not use it if you suspect equine sarcoid.
• Use a 20-22g needle and a 5-10ml syringe.
• Desinfect the lesion prior to collecting the material. The needle is inserted into the lesion and moved within it whilst aspirating. Release the negative pressure before withdrawing the needle from the tissue.
• The needle is withdrawn from the tissue and detached from the syringe. The syringe is filled with air and reattached to the needle. The sample is expelled onto a glass slide and processed for routine cytology. The sample can be also be transferred to a sterile swab for culture.

Cytology helps to answer several important questions:
Is surgery needed?
Is it urgent?
Do we need large excision margins?
Is chemotherapy needed prior to surgery?

Skin biopsy
A skin biopsy should be performed when:
• A tumor is suspected (except for equine sarcoids)
• Primary lesions like bulla or intact vesicles are observed
• The dermatitis looks severe or exceptional
• An ulcer persist
• No improvement with therapeutic trials is observed
• Treatment will be long, expensive or dangerous without any certitude of the etiology

Treatment options
Different treatment options have to be proposed to the owners. Clinical observation can be recommended for some tumors but, although benign, they can with time, because of their size, location or secondary trauma create discomfort for the animal (lipoma, follicular tumors...). The majority of skin tumors necessitate an adapted surgical removal. Chemotherapy and/or radiotherapy are useful tools to create remission in some cases (squamous cell carcinoma, cutaneous T-cell lymphoma...). Those approaches have to be proposed to our clients. It is not our role to decide instead of the client what is “reasonable” or “expensive” to treat their pets. As veterinarians we do not have an obligation of results but we have an obligation of means.