



# ECVP/ESVP Summer School in Veterinary Pathology



## Marie Curie Training Courses

### Summer School 2004 – Case 3

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#### Slide No. 3: Tissue from a CAT

##### 1. DESCRIPTION OF HISTOLOGICAL FINDINGS

Pigmented haired skin. There is central (approximately one third of the epidermis) mild epidermal hyperplasia (regular, up to 8 cell layers) and a slightly thicker layer of keratin mainly without nuclei (mild orthokeratotic hyperkeratosis). The epidermis shows mild multifocal basal intracellular oedema. Within and expanding the dermis and extending into the subcutaneous adipose tissue is a non-demarcated nodular mass which is composed of epithelioid macrophages (exhibiting plentiful foamy eosinophilic cytoplasm) and (mainly degenerate) neutrophils, intermingled with multiple fungal colonies (faint to strongly basophilic cloudy accumulations). Fungal organisms consist of broad (5µm), hyaline, septate hyphae, chain-like pseudohyphae and large chlamydiospore-like cells with a matrix of pale amphophilic hyaline material. They are also found in some epithelioid cells. Surrounding the fungal colonies are cell-rich layers of partly degenerating epithelioid macrophages and numerous multinucleate giant cells (up to 30 nuclei per cell). Lymphocytes and plasma cells are seen throughout as well as numerous variably sized blood vessels and small fungal colonies. Mass contains multifocal areas of haemorrhage. Predominantly in the periphery of the mass, multiple, often perivascular accumulations of lymphocytes with lesser plasma cells and macrophages are found. These infiltrates are also seen between subcutaneous skeletal muscle bundles and surrounding adnexae.

##### 2. MORPHOLOGICAL DIAGNOSIS

Chronic, focal, moderate pyogranulomatous dermatitis and panniculitis with numerous intralesional septate fungal hyphae.

##### 3. NAME THE DISEASE: Feline dermatophytic pseudomycetoma

##### MARKS:

|                               |     |
|-------------------------------|-----|
| skin (haired)                 | 1   |
| epidermal hyperplasia         | 0.5 |
| hyperkeratosis                | 0.5 |
| lesion in dermis/subcutis     | 1   |
| neutrophils                   | 1   |
| epithelioid macrophages       | 1   |
| multinucleate giant cells     | 1   |
| other inflammatory cells      | 1   |
| fungal hyphae                 | 1   |
| septate/diameter              | 1   |
| intracellular fungal elements | 1   |
| dermal/adnexal infiltration   | 2   |
| hemorrhage                    | 1   |
| - <i>diagnosis</i> (n=5):     |     |
| (pyo)granulomatous            | 1   |
| dermatitis                    | 1   |

|                  |   |
|------------------|---|
| panniculitis     | 1 |
| septate fungi    | 2 |
| - <i>disease</i> | 1 |
| style:           | 2 |