Squamous Cell Carcinoma in Cats-Symptoms & Treatment

At a glance:

**About:** Squamous cell carcinoma is a type of cancer arising from the squamous cells which are located towards the outer layer of the epidermis.

**Causes:** Exposure to sunlight, especially in pale or white cats, cigarette smoke, a predominantly canned diet, flea collars and chronic inflammation from gum disease.

**Symptoms:** Cancers can develop on the skin and ears, as well as inside the mouth. Symptoms include lumps, non-healing sores, hair loss, difficulty eating, bad breath, scabs along the ear margins.

**Diagnosis:** Thorough physical examination along with presenting symptoms, a biopsy from the affected area and x-rays.

**Treatment:** Surgery to remove the tumour or chemotherapy/radiotherapy on inoperable tumours.

About:

Cancer is the uncontrolled growth of specific cells in or on the body. Squamous cell carcinoma (SCC) is a common malignant tumour of the skin and oral cavity. Oral SCC is responsible for 10% of all cancers in cats and the most common type of oral cancer.
SCC originates in the **squamous epithelium** which is the layer of cells covering the external surfaces, the mucosa of the mouth and lines the hollow organs (lungs, esophagus, bladder and stomach). Although SCC’s are rapid growing tumours and locally invasive, they are slow to metastasis (spread) to other parts of the body.

There are three types of SCC in cats:

- **Oral** – Affecting the oral cavity
- **Skin** – Ears, nose, lips, temples, and eyelids are the most common areas
- **Bowen’s disease** – A skin cancer occurring in multiple locations on the skin

The average age for SCC is 12, however, it can occur in cats from 3 to 20 plus.

**Causes:**

There are a number of possible contributing factors including:

- Exposure to **sunlight**, especially in light coloured cats or cats with sparse such as the Rex and hairless breeds
- Exposure to cigarette smoke, not only is the cat inhaling carcinogens, he is also licking them when he grooms

Other possible causes include the use of flea collars, chronic inflammation from gum disease and cats who eat a predominantly canned diet.

**Symptoms:**

**Skin:**

- Small raised red dots on the affected area which slowly increase in size into scaly red patches which crust and bleed
- Non-healing sores on the nose or face
- Scabs along the ear margins which may ulcerate
- Itching
- Hair loss in the affected area
- Sneezing
- Tissue erosion is common as the tumour progresses into the deeper tissue layers

**Oral cavity:**

- Lump in the mouth
- Bad breath
- Reluctance to eat, which in turn can lead to slow and progressive weight loss
- Dropping food when eating
- Drooling
- Swelling of the upper or lower jaw
- Loose teeth
- Oral pain

**Bowen’s disease:**

- Multiple sores on the head and body
- Ulcerations
- Dried crusty areas, especially on the head

If you see any lumps, bumps, scabs, crusty areas on your cat, seek veterinary attention. Some symptoms of SCC can mimic other diseases such as ringworm so it is important that you seek a proper diagnosis so the appropriate treatments (if any) can be given.

It is important to note that SCC’s are common in the oral cavity of cats, which makes it hard for pet owners to see it. This highlights the importance of annual or even bi-annual veterinary visits for older cats as well as paying attention to changes in your cat such as reduced or loss of appetite or weight loss.

**Diagnosis:**

A complete medical history and physical examination including a medical history.

A presumptive diagnosis of squamous cell carcinoma may possibly be made by examining the cat. However, a biopsy and lymph node aspirate will be required to confirm this diagnosis, this will be performed under general anesthesia.

Other tests will include:

- Dental x-rays which can show if any bone destruction has occurred
- Chest x-rays to determine if the tumour has spread
- A complete blood count and biochemical profile to assess your cat’s overall health

**Treatment:**
The key to treatment is early diagnosis before the tumour has progressed to underlying tissue or spread to the lymph nodes and lungs.

- Surgery to remove the tumour with a wide margin, in advanced cases, not only will the tumour be removed due to the invasiveness of this type of cancer. Underlying tissue may also be removed, including the ear, nose or jawbone. For cats with oral SCC, the closer towards the front of the lower jaw, the better the outcome. Tumours further back in the mouth or occurring in the upper jaw are harder to remove.
- Cryosurgery to remove the cancerous cells.
- Chemotherapy or radiation therapy on inoperable tumours to slow down progression or post-operatively in cats who have had their tumour surgically removed.
- Electrochemotherapy is an emerging therapeutic which shows great promise for the treatment of skin tumours. Chemotherapy drugs are poorly absorbed, this treatment allows for better penetration by delivering an electric impulsions into the tumour after administration of chemotherapy.

If found and treated early, the prognosis for cats with skin SCC is good. Unfortunately, the above treatments generally don’t have a high success rate for cats with oral SCC and even with aggressive treatment, most cats survive less than 12 months. Therefore palliative care is the only treatment for cats advanced SCC.

This includes:

- Pain management to keep your cat comfortable.
- Nutritional support such as feeding a soft diet or a feeding tube for cats affected with oral SCC.

Prevention:

- Limit your cat’s exposure to the sun by confining him/her indoors during the hours of 10.00am – 4.00pm.
- Application of a waterproof sunblock. Speak to your veterinarian about which brands are safe to use on cats.
- Early detection is important, so your veterinarian may wish to take a biopsy to determine if your cat has sunburn or squamous cell carcinoma.
- If your cat has sunburn, seek veterinary attention immediately. Treatment depends on the severity of the burn.
- Do not smoke around your cat.
- If you notice small scabs on your cat’s face, nose or ears which don’t resolve after a few days, seek veterinary advice. Tumours treated early have a better prognosis.

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