INFORMATION SHEET (ONCOLOGY)

PERIANAL ADENOCARCINOMA

Perianal adenocarcinoma (also known as circumanal or hepatoid tumour) is an uncommon malignant tumour that occurs in the area around the anus. The majority of tumours found in this location (58–96%) are perianal adenomas, which are benign tumours that generally are hormone-dependant. They are most commonly found in older intact male dogs and their growth is thought to be driven by testosterone. They are also occasionally seen in desexed male dogs and occasionally in female dogs. Perianal adenocarcinomas occur in both male (the majority) and female dogs irrespective of whether or not they have being desexed and they tend to occur in older dogs. As with most tumours in animals (and people), we do not know what causes them to occur. Any dog can develop a perianal adenocarcinoma but certain breeds are predisposed. Cats rarely develop this cancer.

Clinical signs

The most common presenting complaint for animals with perianal adenocarcinoma is local irritation, which may result in bleeding, straining to defecate, scooting of the hind end along the ground and licking of the anus. Some owners notice a fast growing, firm (sometimes ulcerated) lump protruding from near the rectum. Castrated males with new or recurrent perianal tumours raise the suspicion for this less common malignant form. Uncommonly, perianal adenocarcinomas can produce a hormone that results in increased blood calcium levels (hypercalcaemia). Signs consistent with hypercalcaemia may include increased water consumption, increased urination, weight loss, weakness or vomiting. Some perianal tumours are discovered as an incidental finding during rectal examination or while taking the animal's rectal temperature.

Diagnosis and staging

To diagnose a perianal adenocarcinoma a fine needle aspirate or biopsy is performed. A fine needle aspirate is a simple test done with a small needle and syringe collecting a small number of cells. Unfortunately it is not always possible for this test to be able to differentiate benign from malignant perianal tumours and a biopsy is often necessary. A biopsy is a slightly more invasive procedure and involves taking a larger sample. It is more likely to provide a diagnosis and can be carried out under sedation and/or local anaesthetic though often a general anaesthetic is required. An incisional biopsy involves taking a small sample of tissue from within the tumour. This is indicated for most tumours in this location. An excisional biopsy involves removing the entire tumour and requires a general anaesthesia. This could be considered for smaller tumours.

Once a diagnosis has been reached further tests, or staging tests, are done to screen for cancer spread to internal organs (these are called 'metastases'). Staging for a perianal adenocarcinoma usually includes an abdominal ultrasound (with special attention paid to the lymph nodes that drain the anal area — the sublumbar nodes) and chest radiographs. Blood tests (a complete blood count and biochemistry) and urinalysis are also performed to establish the general health of the patient prior to treatment and to check for hypercalcaemia.

Treatment

Treatment options for perianal adenocarcinoma include surgery, chemotherapy, radiation therapy and symptomatic treatment. Surgery is usually the best treatment option and where possible complete excision (removal) of the tumour is preferred. Surgery is indicated for tumours that are smaller and less invasive and if there is no evidence of spread beyond the local lymph nodes. It involves removing the tumour with a wide margin of normal tissue both around it and underneath it to increase the likelihood of removing the entire tumour. This can be difficult due to the location of tumour close to the anal sphincter and it is uncommon for wide excision to be achieved and some residual tissue is left. If the tumour occupies more than half of the circumference of the anal sphincter removal of the entire tumour can result in faecal incontinence. The surgeon will often be able to give an estimate of the likelihood of this occurring based on the tumour size and even if incontinence does occur to some degree, it may be intermittent. Even if there is spread to the lymph nodes these can often be removed at the time of removal of the anal mass and the outcome can still be reasonably good, although cure is not likely. Surgery is not always an option for animals with metastatic disease beyond the local lymph nodes and for large and invasive tumours. Castration is the treatment of choice for benign perianal adenoma, as they are hormone dependant, and the vast majority of these tumours will regress following castration.

Chemotherapy is recommended in addition to surgery given the high metastatic rate of these tumours. Even if there is no evidence of cancer spread or metastases on our staging tests this does not mean that the cancer has not spread, as there may be microscopic cancer cells that have metastasised. Chemotherapy is also indicated if the cancer cannot be removed with surgery, has already metastasised, or if some residual cancer remains after surgery. The most commonly used chemotherapy drug for perianal adenocarcinoma is carboplatin. This is administered by an intravenous injection every three weeks often for 4–6 treatments. Chemotherapy is generally well tolerated in animals (please see the 'Chemotherapy in animals' information sheet).

Radiation therapy can also be used to treat perianal adenocarcinoma, especially when surgery is not possible or there is residual cancer left after surgery. Radiation is a local treatment only and does not treat metastatic disease other than the local lymph nodes. It must be combined with chemotherapy to treat disease elsewhere in the body. Unfortunately access to radiation in Victoria is limited and to treat this area including the lymph nodes would require travel to Queensland.

Symptomatic treatment may be required for hypercalcaemia as persistently high calcium concentrations may cause injury to the kidneys. This involves treatment with oral medication such as prednisolone or frusemide. These cause diuresis or increased urination, which help reduce the blood calcium concentration. Some animals may require a high fibre diet or stool softeners if they are having difficulty defecating.

Prognosis

The prognosis for perianal adenocarcinoma depends on many factors including the presence or absence of metastases, whether the tumour can be surgically removed and whether or not the tumour is new or a recurrent tumour (i.e. regrowth of tumour previously removed). Currently, there is not a lot of information regarding survival times for this cancer and most of what we know is extrapolated from a similar tumour of the anal glands. The average survival time for patients treated with chemotherapy alone is 6–9 months. The average survival time for patients treated with surgery alone is 12 months and the average survival time for patients treated with a combination of surgery and chemotherapy (and in some cases radiotherapy) is about 18 months.

Follow up

Following the completion of chemotherapy we recommend periodic rechecks to screen for recurrence or metastasis. These are typically recommended one month after finishing chemotherapy and then every three months thereafter. Early detection of recurrence or metastases is often beneficial and allows for prompt management or treatment.

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