

VET INFORMATION SHEET

HAEMANGIOSARCOMA

by Dr Rod Straw

SPLENIC MASSES

Splenic masses are common in small animal practice and dogs presenting with these masses may have clinical signs attributable to sudden intra-abdominal blood loss or the abdominal mass may be noted incidentally on clinical examination. I realise that not all cases are the same and there may be different situations depending on how critical the patient is at the time of presentation. However, I would like to give these “rules of thumb” as a guide for workup and management.

Diagnosis

A diagnosis of an intra-abdominal mass is usually made on palpation of the abdomen or abdominal radiography. Abdominal ultrasonography is also a useful way of diagnosing an intra-abdominal mass and may help indicate which organ is involved and if there is suspicion of metastatic disease to the liver. Once an abdominal mass is identified, thoracic radiography should be performed to rule out pulmonary metastasis. This is best done by taking both right and left laterals and VD, DV or both projections. Clinical pathology including CBC and biochemistry analysis and urinalysis can be useful in further identifying the dog's overall health status. The PCV, total protein and red cell morphology are often abnormal and especially the anaemia status of the dog should be evaluated prior to surgery.

What to Tell the Owners

At this stage you have a good idea of the clinical status of the animal. A simple rule to follow is the rule of two thirds. The rule of two thirds states that dogs with solitary splenic masses have a two-thirds chance of having cancer. Therefore, one third of the dogs will have benign disease such as haemangioma, haematoma, splenic cyst, nodular hyperplasia and so on. It is very difficult to determine malignant from benign disease through non-invasive techniques. Ultrasonography is not failsafe in determining a pre-operative diagnosis and it is important to note at this stage that nodular changes on the liver do not always represent metastatic disease. Older dogs quite frequently have nodular hyperplasia of the liver and this change can mimic metastatic nodules in both ultrasonographic findings and gross appearance at surgery. Of the dogs that have malignant disease, that is cancer of the spleen, two thirds of these dogs have haemangiosarcoma. Therefore, one third have other sarcomas such as fibrosarcoma or leiomyosarcoma. The latter sarcomas have a better prognosis than haemangiosarcoma.

Prognosis

The prognosis for dogs with splenic haemangiosarcoma, even in the event that there is no metastatic disease detected either at surgery or on thoracic radiography, have a median survival following surgery (ie. splenectomy) of between 90 and 120 days. If we give post-operative Adriamycin adjuvant chemotherapy at 30mg/M2 every 21 days for five treatments, then the median survival with splenectomy goes from about 90 days to 280 days median survival.

Conclusions

Do not over-interpret gross disease or radiographic and ultrasonographic pre-operative findings. It may be worth giving the dog with a splenic mass an opportunity to survive by performing exploratory surgery and an excisional biopsy. The splenic mass should be removed with the spleen and care must be taken not to rupture the mass and risk dissemination into the abdomen. The entire abdomen should be explored for signs of implantation or metastatic disease to the serosal surface of the abdominal cavity and other intra-abdominal organs and metastatic disease to lymph nodes and liver. Any suspicious nodules should be biopsied. The mass should be submitted for histopathology. It is difficult to submit the entire splenic mass so section the mass once the abdomen has been closed and submit appropriate specimens from the normal tissue-tumour junction. Submit several representative samples.

Although dogs with splenectomies may encounter all sorts of post-operative complications, which may include things such as cardiac dysrhythmias, disseminated intravascular coagulation, post-operative bleeding with shock and so on, usually the post-operative course is fairly smooth. I appreciate that many of these dogs may have acute anaemia because of an intra-abdominal bleed prior to surgery and all the principles of emergency care should be applied to these animals. In the event that you have a benign or low-grade malignancy, then there is an opportunity for cure or long-term control following surgery. Haemangiosarcoma is an extremely aggressive metastatic cancer and, almost by definition, should be considered a systemic disease. Adriamycin adjuvant chemotherapy offers some hope for improved survival although we still have a long way to go before we cure all dogs with haemangiosarcoma.

Cancer is a word not a sentence.

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