Intracavitary Chemotherapy

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Dear OncoLink "Ask the Experts,"

I recently joined an on-line canine cancer "support group", after our dog was diagnosed with hemangiosarcoma. Someone in the group posted that University of Pennsylvania had done a study on intercavity chemotherapy as a treatment for hemangiosarcoma. I can't find it. It was supposed to be a very new thing. Can you help me?

Lili Duda, VMD, Editor of the OncoLink Veterinary Oncology Section, responds:

Intracavitary chemotherapy is a palliative treatment for carcinomatosis. Carcinomatosis is a malignant process in which microscopic tumor cells line the entire pleural (chest cavity) or peritoneal (abdominal cavity) lining tissues. These tumor cells produce an effusion (a fluid made by tumor cells) which results in the accumulation of large amounts of fluid in the body cavity. This fluid production can be both uncomfortable and depleting to the patient.

The principle behind intracavitary chemotherapy is to get high levels of the drug to all areas of the body cavity where the tumor cells are living, while trying to minimize systemic absorption of the drug. This treatment can decrease effusion production in some cases for some period of time, and is most likely to be effective for microscopic amounts of carcinoma cells. This treatment is not suitable for hemangiosarcoma for several reasons. First, hemangiosarcoma does not produce an effusion; rather, when patients have fluid accumulation it is typically blood from tumor(s) that are bleeding. Second, hemangiosarcoma produces nodules that are larger than chemotherapy can penetrate by direct contact. Third, the nodules are within tissues as well as on the surface lining of the tissues, so they won't be exposed to the drugs.

Lili Duda, VMD

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