



Circle of Discovery
Morris Animal
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FINAL REPORT

Enhancing Drug Treatment of Bladder Cancer Carol J. Henry, DVM, University of Missouri

RESULTS: Adjunct Drug Therapy Dramatically Shortens Chemotherapy Treatment Time for Dogs with Bladder Cancer

Transitional cell carcinoma (TCC) is the most common malignancy affecting the urinary bladder in dogs. The disease most often affects the trigone region of the bladder, making urinary tract obstruction likely and complete surgical excision difficult at best. By the time TCC is diagnosed in a dog, it is usually advanced to the point that local therapies, which are quite successful in people, are often ineffective. Furthermore, even if local disease control can be achieved, systemic therapy is often required to prolong survival because TCC metastasizes about 50 percent of the time. Various chemotherapy protocols have been evaluated for treating TCC of the bladder in dogs. Although a combination of cisplatin and piroxicam has provided the best response rates to date (more than 71 percent measurable responses), its use is limited because high levels are toxic to the kidneys.

Funded by Morris Animal Foundation, Dr. Carolyn Henry and her team at the University of Missouri recently completed a clinical trial to test the ability of the drug Tavocept to reduce the chemotherapy-induced side effects of cisplatin and piroxicam when treating dogs with bladder cancer. In human patients, Tavocept has been shown to prevent or mitigate common and serious toxicities associated with cisplatin chemotherapy. Although the researchers determined that the combination of cisplatin, Tavocept and piroxicam was not superior to current protocols in terms of bladder tumor response, they did discover that adding Tavocept to the protocol significantly decreased the time needed to administer cisplatin from 6½ hours to 90 minutes, making cisplatin administration more practical in a private clinic setting.

The researchers would like to continue studies of this promising drug combination in other non-bladder types of cancer, such as bone cancer. They hope to find that this chemotherapy combination will decrease the risk of cisplatin-associated kidney toxicity in dogs without urinary problems. This would allow for higher and more effective doses of this chemotherapy drug. As such, this Foundation-funded research has the potential to greatly improve the lives of dogs suffering from a variety of cancers. (D10CA-044)