Canine Lymphoma and the Gut Microbiome

Lymphoma is the most common form of cancer that is treated with chemotherapy in dogs. Multicentric lymphoma targets the peripheral lymph nodes, causing the lymph nodes to become enlarged.

Dogs, like humans, are often treated with chemotherapy when diagnosed with lymphoma. This has a high remission rate, but some dogs develop chemotherapy induced gastrointestinal disease (CIGD) during treatment.

These locations are the most common lymph nodes affected by multicentric lymphoma.

What is CIGD and why is it important?
It is clinical nausea, vomiting, and diarrhea caused from the effects of the chemotherapy drugs. It occurs in approximately ¼ of the canine patients undergoing chemotherapy for lymphoma.

What can we do about CIGD?
These dogs are usually treated with an antibiotic, Metronidazole, to shorten the time of signs. But what if there’s another way?

Research is being done that may help show that the intestinal microbiota affects whether dogs develop CIGD during chemotherapy. With this information, doctors would be able to know which patients are more susceptible and even perform fecal transplants to reduce the risk of CIGD development which would increase the survival and remission time!

What’s the intestinal microbiota?
These are the bacteria that live in the intestine and can impact the health of the host!

Aren’t all bacteria bad?
No! Many bacteria in the body can help protect us, strengthen the immune system and keep us healthy!

Nicole Mulready
Mentor: Dr. Linda Mansfield
Comparative Enteric Diseases Laboratory