

EFFECT OF *BIFIDOBACTERIUM LONGUM* 999 SUPPLEMENTATION ON STRESS ASSOCIATED FINDINGS IN CATS WITH FELINE HERPES VIRUS-1 INFECTION.

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Bifidobacterium longum strain 999 (BL999) is a probiotic (contained in Purina® Pro Plan Veterinary Supplements® Calming Care) that has been shown to help dogs maintain calm behaviour and is known to be safe in cats. Feline herpes virus-1 (FHV-1) is the most common infection of cats and clinical disease can be exacerbated by stress.

The primary hypothesis was that cats supplemented with the BL999-containing product would have higher relaxation scores, lower stress markers, and lower FHV-1 clinical scores than cats supplemented with the same product, but without BL999 as a placebo when mild stress was induced by changing the type of housing. This 12-week study enrolled 24 cats with chronic subclinical FHV-1 infection that were randomly divided into two groups.

The cats were supplemented with BL999 (group 1) or placebo (group 2) daily. After BL999 was supplemented for 42 days to achieve probable maximal effects, the cats were moved from the individual gang rooms into cages, back into gang rooms, and then back into cages to induce mild stress over the next 44 days while behavioural, clinical, and biochemical markers were measured. Cats consumed an average of 88% of the canned food containing the BL999 with no known vomiting.

During the stress periods, the cats supplemented with BL999 were significantly less likely to have abnormal serum cortisol concentrations ($P = 0.0234$) or sneezing ($P < 0.0001$).

During the times cats were housed in cages, those supplemented with BL999 were significantly more likely ($P < 0.0001$) to reach out to the scorers through the cage bars and were significantly less likely ($P < 0.0003$) to pace in the cages.

The results of the study suggest that BL999 is well tolerated by cats, reduces stress, reduces stress associated signs like sneezing associated with reactivated FHV-1, and increases social interactions between cats and people.

