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# Prevention of antibiotic induced diarrhoea in dogs by fermented milk products

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In the veterinary field the enormous use of strong antibiotics result in certain complications of dogs which may some times prolong the time of recovery. The beneficial bacteria in the gut can be killed by a number of antibiotics. Antibiotic-associated diarrhoea, especially with broad-spectrum antibiotics is a common clinical problem that the health personnel encounter in human and animal practice as well, even though it was not reported yet in Sri Lanka. The objective of this study was to confirm the phenomenon of diarrhoea induced by antibiotics and to assess the effect of locally manufactured yoghurt as a prophylactic measure to reduce antibiotic-associated diarrhea in dogs. This study was carried out at Warakapola, within a period of one month. Twenty male local dogs between 6 months and 1 year of age were divided into two groups namely Control 1 (n=10)and Test 1 (n=10). They were fed with a normal diet. The Test 1 animals were introduced with an initial dose of broad spectrum antibiotic doxycycline monohydrate orally at 25mg/Kg once daily, followed by 15mg/Kg for 5 days, after 7 days of the adaptation period. The control 1 group was not treated with the antibiotic. Another 20 dogs were divided into two groups namely Control 2 and Test 2 and the Test 2 was given antibiotics and 2 yoghurts (each 85 ml) per day containing live *probiotics* namely, *Streptococcus thermophilus* and *Lactobacillus bulgaricus*. Control 2 was given only the antibiotics as in the Test 1 group. The dietary intake, the consistency of stools and the behavior were observed in all these groups. By 4$^{th}$ day of the treatment 7 out of 10 in the Test 1 had reduced appetite with watery diarrhoea. At 6 $^{th}$ day other 3 also showed similar changes whereas the Control 1 group had normal appetite and bowel movement. Eight out of 10 in the Test 2 did not have anorexia and diarrhoea with the treatment of antibiotics whereas all dogs in the Control 2 developed the same clinical signs as in Test 1. The results showed that the fermented milk products containing live probiotics may help to maintain the gut microflora which are closely associated with prevention of developing diarrhea and anorexia. This can be applied under prevailing management practices to minimize the problems that owners and veterinarians encounter very often. Owners can be advised to introduce 2 yoghurts (each 85 ml) per day with oral antibiotics doses, which may improve the appetite of the dogs and the nutritional status resulting in promoting the prognosis. Further, complaints of normal anorexia of pets may be treated with fermented milk products with concurrent investigations.

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