

## Single supplementation of goat colostrum, probiotics, and prebiotics for diarrhoea management in cats

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**ABSTRACT:** Diarrhoea in cats is a change in the condition of faeces from paste to liquid consistency caused by several factors, such as food changes and bacterial, viral, and parasitic infections. Handling diarrhoea in cats is performed immediately so that the symptoms subside. One effective prevention and control effort is the provision of colostrum-based supplements, probiotics and prebiotics. In a case of diarrhoea at the Depok Pet Center clinic, two cats aged 1.5 years (Ayu) and 5 years (Gentong) were given colostrum-based supplements, probiotics, and prebiotics. The initial symptoms of the Ayu cat were diarrhoea and liquid faeces, while the Gentong cat had decreased appetite, weakness, and paste-shaped faeces. Supplementation was carried out for two days. On day three, the condition of the faeces of both cats were solid and shaped, but some parts of the faeces were still mushy. On day six, the condition of the faeces of both cats was good, marked by being shaped and solid.

### Keywords:

diarrhoea, cat, goat colostrum, prebiotic, probiotic

### ■ INTRODUCTION

Cat diarrhoea, characterised by abnormal faecal consistency, from paste-like to liquid, is a pressing issue in feline health. This condition can arise from various factors, including changes in diet, microbial infections, and other digestive disturbances. Cats experiencing diarrhoea exhibit reduced appetite, abdominal pain, increased defaecation frequency, vomiting, and lethargy. Several factors contribute to the onset of diarrhoea, including infections, dietary changes, age, climate, and number of cats housed together (German *et al.* 2017).

Addressing this issue is of utmost importance to the veterinary community and cat-owners. Preventing and managing diarrhoea in cats involves ensuring feed quality, providing sufficient fluid intake, and avoiding sudden dietary changes. Colostrum, probiotics, and prebiotics have also been suggested as additional preventive measures. Gore *et al.* (2021) was among the first to report that incorporating 0.1% colostrum in kitten feed can enhance the immune system. The proposed mechanisms include an increased response in gut-associated lymphoid tissue (GALT), improved systemic immune response, and stabilisation of the intestinal microbiota. This case report, which aimed to evaluate the effectiveness of goat colostrum, probiotics, and prebiotics in managing diarrhoea in two cats presenting with varying symptoms at the Depok Pet Center clinic, has the potential to significantly improve feline health in the future.

### ■ CASE

**Anamnesis and Signalment:** Two domestic rescue cats, Ayu (female, 1.5 years old) and Gentong (male, five years old), were brought to the Depok Pet Center Veterinary Clinic. Ayu presented with diarrhoea, characterised by a consistency of liquid faeces, light brown in colour, large in volume, and occurring infrequently (Figure 1). In contrast, Gentong exhibited lethargy, loss of appetite, and paste-like faeces of medium volume, brown in colour, and infrequent defaecation.

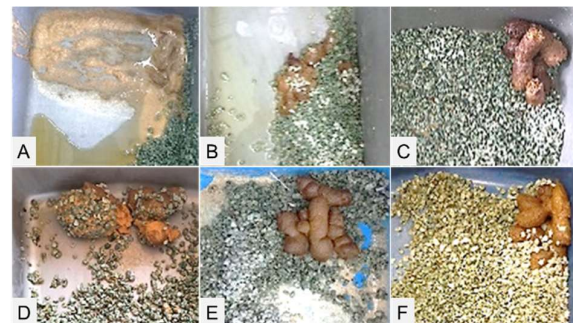


Figure 1. Faeces condition of Ayu and Gentong at (A, D) 1st day before and (B, E) 3rd day and (C, F) 6th day during receive Felostrum.

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Anamnesis revealed that both cats experienced weight loss and sudden changes in their diet before the onset of diarrhoea. **Physical Examination:** Vital signs, including temperature, respiratory rate (RR), heart rate (HR), and capillary refill time (CRT), were assessed. **Diagnosis:** Diarrhoea in both cats was attributed to sudden changes in their feed. **Treatment:** Both cats were treated with a supplement containing colostrum, probiotics, and prebiotics.

## ■ RESULTS AND DISCUSSION

The successful treatment of diarrhoea in cats, attributed to sudden dietary changes, was made possible by our thorough monitoring process. Over the six-day treatment period, the cats' physiological conditions, frequency of diarrhoea, and faeces characteristics (colour, consistency, and volume) were meticulously monitored. Physiological parameters were assessed every morning, and the cats received supplements containing colostrum, probiotics, and prebiotics. This diligent monitoring process, coupled with the administration of these supplements, each with its unique benefits, ensured the successful recovery of cats. The colostrum, which is rich in immunoglobulins, helps strengthen the immune system in cats (Geiger 2020). Probiotics protect the digestive system by preventing pathogenic bacteria from colonising the gut and reducing inflammation, whereas prebiotics promote the growth of beneficial bacteria and enhance digestive function (Gore *et al.* 2021).

Ayu's journey from admission with severe diarrhoea to full recovery is a testament to the effectiveness of our treatment. Ayu was admitted with diarrhoea, characterised by liquid faeces, light brown colour, large volume, infrequent defaecation, and reduced appetite. After three days of treatment, Ayu began receiving supplements. The progress was nothing short of remarkable, with a return of appetite and faeces, which started to solidify. By day six, Ayu fully recovered from diarrhoea, as evidenced by excellent faeces and appetite return. This significant improvement, attributed to the colostrum, probiotics, and prebiotics administered over the two-day supplementation period, instills hope and optimism in our future treatment endeavours.

Gentong was admitted with diarrhoea, presenting with paste-like faeces, light brown in colour, medium volume, infrequent defaecation, and reduced appetite. After three days of treatment, Gentong began receiving colostrum, probiotics, and prebiotic supplements. Some progress was observed as the consistency of the faeces began to solidify, although some portions remained paste-like, and appetite had not yet fully returned. The following day, Gentong showed significant improvement, with both the appetite returning and faeces becoming more solid. By day six, Gentong was considered to have fully recovered from diarrhoea, marked by a completely solid faeces and restored appetite.

Table 1 The result of physical examination of patient cats before and during therapy using Felostrum

Patient Name	Day	Temp (°C)	Respiratory rate (x/min)	Heart rate (x/min)	Capillary refill test (s)
Ayu	1	38.1	66	152	<2
	3	38.5	56	120	<2
	6	38.9	60	130	<2
Gentong	1	38.7	32	120	<2
	3	38.7	40	125	<2
	6	38.2	42	120	<2

Table 2 The result of examination of faeces in patient cats before and during therapy using Felostrum

Patient Name	Day	Faeces Parameters			
		Colour	Consistency	Volume	Frequency
Ayu	1	Pale Brown	Watery	+++	+
	3	Brown	Very moist (shape visible)	++	+
	6	Brown	Firm	+	+
Gentong	1	Brown	Has texture (no shape)	++	+
	3	Brown	Very moist (shape visible)	+	+
	6	Brown	Firm	+	+

Note: score (-) = no defecation; score (+) = small or rare; score (++) = medium volume or frequent; score (+++) = voluminous or very frequent

The recovery process in cats with diarrhoea is largely attributed to improved immunity and balance of digestive tract microbes. Budiono *et al.* (2024) reported that a combination of colostrum, probiotics, and prebiotics can enhance the immune system. The healing process in cats can be assessed by improvements in faeces consistency, volume, and defaecation frequency.

## ■ CONCLUSION

Sudden dietary changes have caused diarrhoea in cats. Supplements containing goat colostrum, probiotics, and prebiotics for over two days led to significant improvements in the health of cats. These changes included normalising faeces consistency and restoring appetite, both of which were adversely affected by diarrhoea.

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