Jinhee Kang et al., J Vet Sci Technol 2017, 8:6 (Suppl)
DOI: 10.4172/2157-7579-C1-031

The changes in fecal appearance according to ages in the absence/presence of enteropathogens

Jinhee Kang[1], S H Jung[1], J B Chae[2], S H Kim[3], A Cho[3], Y H Jung[3], C Y Choe[3], J G Yoo[3], D H Yu[4], K S Choi5, H C Kim6, B K Park7, J S Chae[2] and J Park[1]
[1]Chonbuk National University, South Korea
[2]Seoul National University, South Korea
[3]National Institute of Animal Science, South Korea
[4]Gyeongsang National University, South Korea
[5]Kyungpook National University, South Korea
[6]Kangwon National University, South Korea
[7]Chonnam National University, South Korea

Introduction & Aim: Calf diarrhea in 1-60 days after birth accompanies dehydration, malnutrition, hypothermia and even death. The cause of diarrhea is either infectious or non-infectious in nature and the former case includes bacteria (pathogenic *Escherichia coli, Salmonella*, etc.), viruses (*Rotavirus, Coronavirus*, etc.) and parasites (*Eimeria, Cryptosporidium*, etc.). However, there was no study to be done on fecal appearances such as fecal color and liquid state and their changes associated with age and pathogen. This study is to provide basic and simple information associated with diarrhea by investigating changes in their fecal color and liquid state according to their age as well as the pathogen.

Materials & Methods: 111 calves from 9 farms in Korea were selected for this study. The fecal state was classified by solid (0-value), semi-solid (1-value), loose (2-value) and watery (3-value). The color was classified by yellow and brown. In order to detect fecal pathogens in diarrhea-induced calves, RT-PCR and Rapid BoviD-5 Ag Test Kit (Bionote Inc., Korea) were used and then the relationship between age, fecal liquid state and fecal color was compared according to pathogen-positive/negative results.

Results: In the absence of pathogen, semi-solid type decreased and solid type increased as age increases. Solid and semi-solid types were commonly observed in the absence of pathogen, whereas the loose fecal type is predominantly observed regardless of age in the presence of pathogen. The fecal color tended to be yellow under 10 days old and changed to brown as calves grow older regardless of pathogen infection.

Conclusion: This research analyzed fecal color and liquid state using the feces collected from farms. For healthy calf, the liquid state such as semi-solid is associated with calf age, considered as normal (non-diarrheic) in calves aged less than 10 days. Also, this study demonstrates the fecal color turns from yellow to brown as age increases. This study would help early predict and detect pathological fecal changes by offering criteria on normal fecal appearances according to age and pathogen infection.

Biography

Jinhee Kang is a Postgraduate student of Chonbuk National University, Graduate School of Veterinary Medicine. She has participated in research related to healthcare and disease prevention of large animal.

jinhee524@naver.com

Notes: