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OCCURRENCE OF *CAMPYLOBACTER* SPP. AND *ARCOBACTER* SPP. IN GOATS

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Abstract

Arcobacter spp. and *Campylobacter* spp. belong to the family Campylobacteraceae but they differ in that *Arcobacter* can grow at temperature below 30°C and aerotolerance. *Campylobacter* is a zoonotic foodborne pathogen and can be divided into thermophilic and non-thermophilic *Campylobacter*. Thermophilic *Campylobacter* has become a major cause of bacterial gastroenteritis. *Arcobacter* is an emerging group of zoonotic foodborne and waterborne pathogens in which there are about 13 recognised species. To date, limited studies have been done in Malaysia to determine the occurrence of these bacteria in goats. Twenty goats each from 3 different goat farms in Selangor, Malaysia were randomly selected. Two sets of rectal swabs were collected from each goat. One set of the rectal swab was placed in Cary Blair transport medium and the other set agitated in *Arcobacter* broth. Isolation and identification were done in order to isolate *Campylobacter* and *Arcobacter* spp. from the samples. For *Campylobacter* spp., the samples were cultured via direct plating to the CCDA. Out of the 60 goats, 9 (15%) goats were positive for *Campylobacter* spp. of which 5 (8.33%) were *C. jejuni* and 4 (6.67%) were *C. coli*. For *Arcobacter* spp., enrichment in *Arcobacter* broth followed by culture on the blood agar was done. Nine (15%) goats were found positive for *Arcobacter* spp. This study showed that the occurrence of *Campylobacter* spp. and *Arcobacter* spp. in goats were low, but prevention and control measures are still needed to be taken into consideration because both bacteria have zoonotic importance.

Keywords: goats, occurrence, *Campylobacter* spp., *Arcobacter* spp.