TITLE: OCCURRENCE OF *Arcobacter* spp. IN FROZEN OR CHILLED CHICKEN RETAIL CUTS AND CARCASSES

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ABSTRACT: *Arcobacter* spp., formerly known as aerotolerant *Campylobacter*, is considered an emerging foodborne pathogen associated with gastroenteritis, persistent diarrhea and bacteremia in humans. In animals these microorganisms cause abortion, infertility, mastitis and diarrhea. *Arcobacter* is a Gram negative bacteria susceptible to freezing, but is able to survive at 4oC. The species recognized as pathogenic to humans are *A. butzleri*, *A. cryaerophilus* and *A. skirrowii*. These species are also frequently isolated from asymptomatic animals that are believed to be the natural reservoir of this group of microorganisms. Foods of animal origin are probably the main route of transmission of *Arcobacter* to humans. In Brazil, there are few studies of the occurrence of *Arcobacter* in chickens and pigs in slaughterhouses and processing plants. The objective of this study was to detect the presence of the genus *Arcobacter* spp in frozen or chilled chicken retail cuts and carcasses marketed in the cities of Piracicaba (SP) and Campinas (SP). A total of 120 samples were analyzed. The samples were washed with Buffered Peptone Water (BPW) and the wash water was inoculated into *Arcobacter* Broth (Oxoid) supplemented with CAT. After 48h of incubation at 30^{o}C, passive filtration (0.45µm membrane filter) was performed on *Arcobacter* Agar (Oxoid) supplemented with CAT, incubated for up to 72h at 30^{o}C in aerobiose. Two to six characteristic colonies were selected for biochemical testing and molecular confirmation by PCR (polymerase chain reaction). The result showed presence of *Arcobacter* spp. in 47.5% (47/120) of the samples analyzed, including: 56.6% (17/30) for chilled whole chicken carcasses, 6.6% (2/30) of frozen whole chicken carcasses, 36.6% (11/30) of frozen chicken retail cuts and 90.0% (27/30) for chilled chicken retail cuts.

KEYWORDS: *Arcobacter*; emerging pathogen; occurrence; foods; chicken.

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