

ISOLATION OF *Yersinia enterocolitica* IN SLAUGHTERED SWINE

(ISOLAMENTO DE *Yersinia enterocolitica* EM SUÍNOS AO ABATE)

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The bacterial genus *Yersinia* includes 14 species (BOTTONE et al., 2005), of which four are considered pathogenic to animals and/or humans, among them, *Yersinia enterocolitica* (ORTIZ MARTINEZ, 2010). Despite its heterogeneous distribution, (LYNCH et al., 2006; BONARDI et al., 2010), pigs constitute the major source of infection of *Y. enterocolitica* in humans while the main route of transmission is the pork and contaminated products (FREDRIKSSON-AHOMAA et al., 2011; DRUMMOND et al., 2012). According to Howard et al. (2006), various diseases can be caused by *Y. enterocolitica* in humans, ranging from a mild diarrhea to severe complications such as mesenteric adenitis and rheumatoid arthritis. In order to determine the occurrence and to isolate this agent in the pig slaughtering process, samples of biological tissues were collected, as well as excreta and swabs of pig carcasses at slaughter and of slaughter knives from a slaughterhouse subjected to sanitary inspection by the State Inspection Service of the São Paulo State (SISP). A total of 175 samples from 25 animals consisting of tongues, tonsil, submandibular and mesenteric lymph nodes, carcass swabs, rectal contents and swabs of the knives used for inspection were analyzed. The methodology recommended by the International Organization for Standardization, method ISO 10273 (ISO, 2003), to isolate *Y. enterocolitica* was used. The bacteria was isolated in 5 samples of tonsils, 4 tongues, 2 submandibular lymph nodes, 2 knives and 1 mesenteric lymph node, totaling 14 positive samples (8%) of the 175 collected. Only the isolates from the knives were considered pathogenic *Y. enterocolitica*, biotype 4, serotype O: 3. Thus, the knife used for inspecting the meat should be considered an important fomite for the dissemination of the agent to the carcass of the contaminated animal itself and to other non-contaminated animal carcasses through cross-contamination. The isolation of the agent in samples from clinically healthy animals poses a risk to public health, due to the possibility of ingesting pork infected with *Y. enterocolitica*.

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