

Title: *Salmonella* spp ISOLATED FROM POULTRY CARCASS SOLD IN PUBLIC MARKETS IN THE CITY OF RECIFE – PERNAMBUCO, BRAZIL

Authors: MELO, N.S.S; SILVA, M.G.V; J.M, ANDRADE, MOURA, F.M.L; LEAL, C.A.S.; MEDEIROS, E.S

Institution: PROGRAMA DE PÓS-GRADUAÇÃO EM BIOCÊNCIA ANIMAL, UNIVERSIDADE FEDERAL RURAL DE PERNAMBUCO, LABORATÓRIO DE INSPEÇÃO DE CARNE E LEITE, DEPARTAMENTO DE MEDICINA VETERINÁRIA, CEP: 52171-900 RECIFE, PERNAMBUCO, BRASIL.

Abstract:

Human salmonellosis is one of the most important foodborne diseases and it is a health problem worldwide. Poultry carcass is one of the main sources of *Salmonella* spp. when foodborne illness outbreaks are investigated; and it may be disseminated through food products, especially poultry products because of cross contamination, improper handling and inadequate storage. Therefore, the aim of the study was to isolate *Salmonella* spp. from poultry carcass sold in public markets in the city of Recife, Pernambuco – Brazil. A total of 61 samples of poultry carcass were obtained, and then the samples were placed in cool boxes and sent to the meat and milk inspection laboratory of the Universidade Federal Rural de Pernambuco, immediately. At the laboratory, 25 grams of each sample were taken and placed in sterile bags (*stomacher*) with 225 ml of 0,1% peptone water, and incubated for 24 hours at temperature of 35 ± 1 °C. After that, 1,0 mL of each pre-enhanced broth was transferred to tubes with 9 mL of Rappaport Vassiliadis broth and 0,1 mL transferred to tubes with 9 mL of tetrathionate broth, and incubated in water bath for 24 hours at $42 \pm 0,2$ °C e 35 ± 1 °C respectively. Then, a loop from the tubes were taken and plated in differential and selective media Agar Xylose Lysine Deoxycholate (XLD) and Hektoen Enteric Agar (HE) and incubated for 35 ± 1 °C. On the following step, typical colonies of *Salmonella* spp. were submitted to biochemical tests with Citrate, Triple Sugar Iron Agar, Urease and Lysine. A serological test was done for the confirmation of the colonies suspect in the biochemical tests with agglutination test with polyvalent. 21 out of 61 samples were positive for *Salmonella*. Due to the number of positive samples in the present study, it stresses out the importance of cleaning procedures in food handling in the market places and highlight the impact that it brings to public health.

Keywords: salmonellosis, foodborne diseases, serological test

Acknowledgments: I would like to thank CAPES (coordenação de aperfeiçoamento de pessoal de nível superior) for the financial support.