TITLE: RESEARCH FOR *Salmonella* sp. IN CHICKEN EGGS (*Gallus gallus domesticus*) FOR HUMAN COMSUMPTION.

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ABSTRACT:

The objective of this study was to investigate the presence of *Salmonella sp*. in chicken eggs from four farms in the State of Alagoas (AL) in the eggshell and eggs contents, which were intended for human consumption. Samples were collected during the period from January to February 2017 totaling 30 eggs per farm. After the field harvest the eggs were sent to the Laboratory of Infectious Diseases of the Federal University of Alagoas for microbiological analysis. Eggshell and egg contents of each farm were studied and these samples were submitted to pre-enrichment, selective enrichment and cultured in MacConkey Agar. After the incubation time and bacterial growth, the colonies with typical morphology of *Salmonella* sp. and other pathogens of public health interest were submitted to phenotypic characterization by means of biochemical tests of Simmons Citrate (LIT), Lysine, Triple Sugar Agar (TSI), Methyl Red (VM), Voges-Proskauer (VP) and Urea. The interpretation was performed with the reference table allowance in identification of *Enterobacteriaceae* by biochemical tests. The data were tabulated in EXCEL® and submitted to descriptive statistical analysis. Based on the data obtained, it was possible to detect the presence of *Salmonella* serotypes in 100% of the farms studied, pointing that contaminated eggs are reaching the consumer´s table in Alagoas State. With the results of the microbiological analysis it was observed that of the eight bark samples, seven bacterial colonies presented vivacious growth, the same happened with the content analyzes, where of the eight samples investigated, seven confirmed bacterial colonies. The bacteriological results of the collected eggs showed that 43% (3/7) of the bacterial colonies of the eggshell samples were positive for *Salmonella* sp., while the percentage obtained for *Salmonella* sp. in the content samples was 86% (6/7). In the eggshells analyzed, the presence of *Enterobacter aerogenes* 14% (1/7), Proteus sp. 29% (2/7), *Klebsiella pneumoniae* 14% (1/7). In the content, *Yersinia* sp. 14% (1/7). The research revealed a significant risk of bacterial infections and a probable increase in outbreaks, of patients and deaths caused by the ingestion of contaminated foods, which would represent a latent threat to public health.

Keywords: Poultry, Public Health, Salmonellosis.