TITLE: PREVALENCE AND ANTIMICROBIAL RESISTANCE OF *SALMONELLA* SEROVARS CIRCULATING IN SWINE ISOLATED IN BRAZIL FROM 2014 TO 2019

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ABSTRACT

The pig is considered one of the most important sources of animal protein available to humans through meat and meat products. This activity has increased and therefore requires systematic surveillance for the control of pathogens that could pose barriers to trade. Particularly, *Salmonella* is an important pathogen from Public Health associated from gastroenteritis in human through the consumption of their products or by cross-contamination with other foods. The aims of this study was detect the *Salmonella* serotypes circulating in swine and industrialized products and evaluate antimicrobial resistance profile to seven antimicrobials classes usually used in the practice human and veterinary (CLSI). From 2014 to 2019 a total of 222 strains of *Salmonella* spp isolated from swine products commercialized were received by NRLED for antigenic conclusive characterization from Public and Private Institutions in Brazil. 23 distinct serovars were identified who incidence varies according to the year. *S.* Typhimurium remained among the 5 most prevalent circulating serovars (33.4%), followed Heidelberg (12.2%); Anatum (8.6%); Children (8.1%) and London (6.3%). The antimicrobial susceptibility profiles indicated that 96,2% analyzed were resistant to up to nine antimicrobial drugs. The results showed the evolution of antimicrobial resistance in Salmonella over the years with 29 distinct resistance patterns detected. MDR was observed in 89% of strains, where the resistance to Ampicillin, Chloramphenicol and Tetracycline appeared in all the profiles detected. Resistance to last generation drugs appeared in strains isolated in 2016 and 2018, with resistance to Ciprofloxacin in 19,6 % and 9,8% respectively and 4% resistance to third generation cephalosporin (Ceftazidime) only 2016. Maybe these results can be explained by the selective pressure due to the use in for therapy, prophylaxis or in a food production and/or growth promotion. This percentuals indicates highlight the importance of surveillance along the food-chain and demonstrated the potential importance of swine as a source transmission the *Salmonella* with multiple antimicrobial resistances, representing a Public Health problem with implications in the treatment and prevention of infectious diseases in humans and animals.