

ANTIMICROBIAL RESISTANCE AND BIOFILM FORMATION OF *YERSINIA PSEUDOTUBERCULOSIS* ISOLATED FROM PORK PRODUCTION CHAIN IN LITHUANIA

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Abstract. Limited information is available on antimicrobial resistance and biofilm formation of *Yersinia pseudotuberculosis*. Therefore, the goal of present study was to examine the antimicrobial resistance and biofilm formation of 27 *Y. pseudotuberculosis* 2/O:3 strains isolated from pork production chain. Antimicrobial resistance was performed with four antimicrobials by the detection of the minimum inhibitory concentrations (MIC).

All *Y. pseudotuberculosis* strains were resistant to erythromycin and sensitive to ciprofloxacin, meanwhile, 37% and 11% of tested bacteria were resistant to tetracycline and streptomycin, respectively. Obtained data on antimicrobial resistance revealed association between *Y. pseudotuberculosis* isolated from different pig farms and assigned to different genotypes ($p < 0.05$). All *Y. pseudotuberculosis* were able to form biofilms. However, no significant differences in biofilm formation of *Y. pseudotuberculosis* and antimicrobial resistance profile was observed. Additionally, no significant differences in biofilm formation and different bacteria sources, genotypes and farms were observed.

Considering the importance of this foodborne pathogen, the data presented is relevant for characterizing *Y. pseudotuberculosis* as one of human yersiniosis agents.

Keywords: *Yersinia pseudotuberculosis*, antimicrobial resistance, biofilm, pork, yersiniosis