EFFECT OF COOKING TIME AND TEMPERATURE ON “CHORIZOS” ARTIFICIALLY INOCULATED WITH *LISTERIA MONOCYTOGENES*.

Silvia Nataly Molina-Moreno, Marcela Mercado-Reyes, Ana K. Carrascal-Camacho
Laboratorio de Microbiología de Alimentos. Grupo de Biotecnología Ambiental e Industrial (GBAI).

Listeria monocytogenes is an emergent food-borne pathogen has caused several food outbreaks, especially through a group of ready-to-eat-food (REF), where meat- and dairy-products are the most affected. The “chorizo” in Colombia is a product that can be done using traditional methods which can survive *L. monocytogenes*, consumers use different methods of cooking so that the objective of this study find whether the cooking times traditionally used by consumers are enough to inactivate *L. monocytogenes* artificially inoculated into Chorizo. A survey asking about “Chorizo” cooking habits was completed with 50 housewives in Bogotá. It analyzed 60 samples of sausages previously inoculated with $10^3$ CFU/g from a pool of 5 strains of *L. monocytogenes*, then the cooking procedures described in the survey were applied to the samples, and counting was done immediately after. Additionally, a complementary test was carried out by inoculating 20 samples of sausages with $10^3$ CFU/g and exposing them to 72 °C and 73 °C for 30 seg. The survey showed that 15 minute boiling and 5 minute frying are the most frequent ways of preparing “chorizos” by consumers. We established that the time and cooking conditions used in our assay had a statistically significant effect (p: 0.016) on the inoculated samples. In the complementary assay, statistical data (p:< 0.0001) indicated that internal temperatures of 73°C was enough to inactivate the pathogen at an industrial scale.