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BOOK OF ABSTRACTS

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I10. Industrial and Food Microbiology and Biotechnology

P351. Table salt as vehicle for *Campylobacter* spp. cross-contamination

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Campylobacter is the major cause of human gastroenteritis (campylobacteriosis) caused by bacteria. Campylobacteriosis is frequently associated with consumption of raw or undercooked poultry meat or via cross-contamination to ready to-eat food during meal preparation. The aim of this study was to investigate the potential for cross-contamination of lettuce via table salt during handling raw poultry. The survival of *Campylobacter* spp. on artificially inoculated table salt was also investigated.
A cocktail of eight strains of *Campylobacter jejuni* and *Campylobacter coli* was used to inoculate chicken skin, to contamination levels ranging from 101 to 105 colony forming units (CFU)/g. Transfer experiments (n=3) were performed by handling the contaminated skin and then stirring 5 g of table salt placed in a sterile petri dish. Salt was homogenised with a sterile spatula and 150 mg were then transferred to lettuce. Campylobacter spp. survival in table salt was evaluated at determined time intervals during 180 min after inoculation of 5 g of table salt with the *Campylobacter* cocktail at final concentration of 105 CFU/g salt. Enumeration of *Campylobacter* spp. was performed following the ISO 10272-2:2017.
Campylobacter was detected in lettuce samples when the chicken skin was contaminated with levels above 102 CFU/g. A reduction of 1.7 log10 CFU/g of *Campylobacter* was obtained after 30 min of exposure to salt. After 60 min a reduction of 2.4 was observed and kept up to 90 min. After 180 min the levels were below the detection limit. The detection of *Campylobacter* in lettuce coming from a low levels of chicken contamination through the table salt and survival over a period that allows meal preparation, including handling raw chicken and preparing salad for a meal, indicates a high risk for *Campylobacter* foodborne illness. Therefore, cross-contamination via table salt could potentially be a kitchen route for exposure of humans to *Campylobacter*.