

## عنوان مقاله:

The effect of short-time microwave exposures on *Listeria monocytogenes* inoculated onto chicken meat portions

## محل انتشار:

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## خلاصه مقاله:

*Listeria monocytogenes* can be found throughout the environment and in many foods. It is associated primarily with meat and animal products. *Listeria monocytogenes* has become increasingly important as a food-borne pathogen. The aim of this study was to evaluate the effect of microwave (MW) treatment of chicken meat samples which were inoculated with *L. monocytogenes*. Drumettes of broiler carcasses were soaked in fully growth of *L. monocytogenes* in Brain-Heart Infusion broth. The swab samples were taken from the inoculated samples, after various times of radiation (10, 20, 30, 40, 50, 60, 70 and 80 sec), using a domestic MW oven at full power. Following exposures, viable counts and surface temperature measurements were performed. The bacterial counts were performed on Oxford agar. The results indicated that equal or longer than 60 sec exposures of chicken portions to MW heating which enhances the median surface temperature more than 74 °C could eliminate the superficial contamination of chicken meat with *L. monocytogenes*. Statistical analysis showed samples with equal or longer than 60 sec exposures to MW heating had significant decrease in population of inoculated bacteria compared with positive control group ( $p < 0.05$ ). Pearson correlation showed a significant correlation between the bacterial population and temperature of samples due to MW (exposure ( $p < 0.001$ ),  $r = -0.879$  and  $r^2 = 0.773$ ).

## کلمات کلیدی:

chicken meat, *Listeria monocytogenes*, Microwave

## لینک ثابت مقاله در پایگاه سیویلیکا:

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