

perferingens were negative and there were two positive cases from *Staphylococcus aureus* while others were negative. The pollution according to the coli forms and mesophil aerobics microbes count are more than standard limit for all the case samples.

#### The Effect of Short-time Microwave exposures on *Listeria monocytogenes* Inoculated onto Chicken Meat Portions

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**Introduction:** In this study the effect of microwave treatment of chicken meat samples which were inoculated with *Listeria monocytogenes* ( $1.6 \times 10^6$  cfu/ml) were investigated.

**Materials and Methods:** Drumettes of broiler carcasses were soaked in fully growth of *Listeria monocytogenes* in BHI broth. The swab samples were taken from the inoculated samples, after different times of radiation (10, 20, 30, 40, 50, 60, 70 and 80 s), using a domestic microwave oven at full power. Following exposures, viable counts and temperature measurements were performed. The bacterial counts were performed on *Listeria* Oxford agar.

**Results:** Elimination of *Listeria monocytogenes* cells occurred only after 50 s of microwave exposure at 73 °C.

**Conclusions:** The results indicate that short time exposures of chicken portions to microwave heating eliminate *Listeria monocytogenes*.

#### Seroepidemiological Study of Human Brucellosis in Yazd province, Iran

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**Introduction:** Brucellosis remains a significant health problem in countries where control of zoonoses is inadequate. This study had three main aims: first, to obtain data about epidemiological features of human

brucellosis in Yazd province, second, to describe the characteristics and exposure to risk factors for brucellosis among cases; and third, to use the data to improve control programmes.

**Materials and Methods:** During the study period, we analysed sera and cultures from 792 suspected brucellosis patients who presented with histories of fever, chills, night sweating, weakness, malaise and headache to the referral hospital in Yazd province. Cases were investigated by tube agglutination test (TAT) and 2-mercaptoethanol test (2-MET) and a questionnaire was completed for each.

**Results:** TAT titre was  $\geq 1:160$  for 745 patients (94.1%) and 2-MET was positive for 42 (5.3%). Prevalence was highest in summer (39.5%) and more common among males than among females. Prevalence was highest among those aged 10-19 years (27.7%). Most of the patients had history of infected cheese, milk and milk product consumption (98%).

**Conclusion:** Control of brucellosis requires elimination of infected animals and vaccination of healthy ones in order to reduce the risk of those in regular contact with animals and to have brucellosis-free animal products. Human brucellosis acquired from milk is preventable, and requires to make pasteurization of milk and dairy products obligatory. Nevertheless, public health education has an important role in preventing the transmission of brucellosis from animals to humans.

#### Study of the Contamination of salmonella in Native hen's eggs and Industrial hen's eggs in Maragheh, East Azarbaijan Province

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**Introduction:** Among the Gram-negative bacteria that cause foodborne gastroenteritis, the most important ones are the members of the genus *Salmonella*. They are widely distributed in nature and animal products such as hen's egg.

**Materials and Methods:** Through about a 9-month period from October 2008 to June 2009, 300 native hen's eggs from local vendors and 300 industrial hen's eggs from poultry farms were collected randomly and equally in each season in Maragheh, East Azarbaijan province. Bacteriological examinations were done by culture in Selenite-F broth as a selective enrichment media and after