Occurrence of Listeria monocytogenes in poultry, fish & their products as well as its public health hazard on women.

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Abstract:

The present study was undertaken to determine the incidence and distribution of Listeria spp. in poultry and some food samples and to investigate listeriosis in pregnant women and their newborns. Genotyping of L. monocytogenes isolates were determined to detect inlA gene as a target by using polymerase chain reaction. 400 samples comprising, poultry (100), chicken pâté (50), hen's egg (100), fish (100) and smoked herring (50) were collected from different poultry slaughter houses, shops, supermarkets and fish markets in Assiut province, Egypt. The study also, included 25 women suffered from intrauterine fetal death, 25 premature labored women and their 25 newborns admitted to Special Care Baby Unit (SCBU), Assiut University Hospital. The overall incidence of Listeria spp., L. monocytogenes, L. innocua, L. ivanonii, L. welshimeri, L. seeligeri and L. grayi was 81 (17.05%), 15 (3.15%), 40 (8.42%), 4 (0.84%), 11 (2.7%), 10 (2.1%) and 1 (0.21%), of the all examined samples respectively. The study revealed that 10%, 10% and 57% of poultry, hen's egg and fish samples were contaminated with Listeria spp., respectively and Listeria was not detected in chicken pâté, egg contents and smoked herring samples. L. monocytogenes was isolated from 2%, 4% and 7% of the examined poultry, eggs and fish samples, respectively. Incidence of human listeriosis was 5.3%, L. monocytogenes was isolated from 2 (2.6%) of both a woman suffered premature labor and her newborn while, L. innocua was isolated from 2 (2.6%) of women suffered intrauterine fetal death. Out of 15 L. monocytogenes isolates detected, 6 (40%) were found to harbor inlA gene. The existence of Listeria species and L. monocytogenes in the examined food samples warrants the need for appropriate control measures as this would pose a serious threat to human health.

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