Study of Histamine Content in Canned Tuna Fish Produceds in Iran by ELISA Method


1- Food & Drug Laboratory research center , Ministry of Health, Tehran-
2- National Nutrition and Food Technology Research Institute , Shahid Beheshti university, M.C.
3-Health and Nutrition Faculty, Tehran Medical university
4- Food Technology Department, Nutrition and Food Technology Faculty, Shahid Beheshti university, M.C.
5-Islamic Azad university, North Tehran Branch

Histamine is one of the biogenic amines which are produced as a result of enzymatic activity of spoilage agent bacteria. As tuna fish family posses a lot of free tissue histidine, they are susceptible of causing histaminic poisonings. In this study 88 samples of tuna fish cans were tested by ELISA method. The obtained results showed that 44.3 percent of them contained higher amount of histamine than the permitted limit (50 ppm). Also it became specified that the tuna fish cans produced in southern states, had higher amounts of histamine in comparison to the products of northern and Central regions. Moreover, it was indicated that the newly made cans comparing to the cans that were nearly expired, contained lower histamine levels.

Key words: Histamine, ELISA, Tuna fish, Cans

*Corresponding author  E_mail address : r.khaksar@sbmu.ac.ir