Study on the Enrofloxacin Residues in Chicken Tissues by HPLC

Rokni, N.[1], Kamkar, A.[1*] , Salehzadeh, F[1]. Madani,.R.[2]

1-Department of food Hygiene, Faculty of Veterinary Medicine, University of Tehran.
2-Razi Institiute, Karaj.

In this study, 270 samples of liver, muscle and kidney of broiler were collected from 90 farms in Tehran province during a year and analyzed for enrofloxacin residue by High Performance Liquid Chromatography (HPLC).

Results showed that all the samples are contained enrofloxacin and in 22(24.44%) of farms enrofloxacin residue was higher than maximum residue level. The enrofloxacin residue in 8 samples of muscle (8.88%), 12 samples of liver (13.33%) and 22 samples of kidney (24.44%) was higher than maximum residue level. The mean value of enrofloxacin concentration in muscle, liver and kidney were respectively: $18.23 \pm 32.29, 18.34 \pm 12.63, and\ 26.06 \pm 19.52$

In conclusion, this study confirmed widespread misuse of enrofloxacin in farms and lack of implementation of recommended withdrawal times. Moreover this study stresses, the need for stricter regulation for the use of antimicrobial drugs in the poultry industry as well as the inspection of chicken for residues prior to marketing.

Key words: Antibiotic, Enrofloxacin, Residue, Liver, Muscle, Kidney, Broiler.

* Corresponding author E-mail address: abolfazl_kamkar@yahoo.com