

Tetracycline residue levels in cattle meat from Nairobi slaughter house in Kenya

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Abstract

Two hundred and fifty beef samples were collected from five slaughterhouses in and around the city of Nairobi. The beef animals were sourced from various parts of the country. Samples of 50-100 grams were collected randomly from the liver, kidney and muscle of different beef carcasses. The samples collected were processed using multiresidue analytical methods that included liquid-gas partitioning and set-pat C18 cartridges chromatographic clean up. Chlortetracycline and ox tetracycline detection was done using Knauer Model 128 HPLC with an electron capture detector. Out of the 250 samples that were analysed for tetracycline residues 114 (45.6 %) had detectable tetracycline residues. Of the 114 samples with detectable tetracycline residues, 60 (24%) were liver samples, 35 (14%), were kidney samples and 19 (7.6%) were muscle samples. The mean ($p > 0.05$) residue levels of tetracycline for the five slaughterhouses studied were as follows: Athi River 1,046 ug/kg, Dandora 594 ug/kg, Ngong 701 ug/kg, Kiserian 524 ug/kg and Dagoretti 640 /lg/kg. Of the 250 samples analysed 110 (44 %) had oxytetracyclines while 4 (1.6 %) had chlortetracycline's. The mean residue levels of the detected tetracyclines were higher than the recommended maximum levels in edible tissues. This study indicates the presence of tetracycline residues in the various edible tissues. Regulatory authorities should ensure proper withdrawal periods before slaughter. This study indicates the presence of tetracycline residues in the various edible tissues. Regulatory authorities should ensure proper withdrawal period before slaughter of the animals. Key words: Tetracycline residue, Nairobi, Kenya.