Gross and histological evaluation of fresh chicken carcass: comparison between slaughtered and cervical dislocated methods

ABSTRACT

The study was conducted to evaluate the gross and histological appearances of fresh chicken carcasses between slaughtered and cervical dislocated methods. In this study, 5 adult broiler chickens with homogenous weight were slaughtered and another 5 chickens were cervically dislocated. The chickens were left at room temperature for 30 min prior to gross examination and sampling for histological examination. The gross appearance of muscle and internal organs was evaluated and compared. The internal organs were fixed with 10% formalin for 72 h before went through the process of dehydration, clearing, impregnation, embedding process into paraffin wax and process of sectioning and staining with Haematoxylin and Eosin. The sections were examined under light microscope. Results in this study revealed that the gross examination of the carcass killed by slaughtering method had showed pallor appearance as compared to the chickens killed by cervical dislocation method which appeared reddish in almost all of the organs. Histologically, there was no significant different in terms of distribution or composition of erythrocytes in the visceral organs except in lungs, kidney and liver where the chickens killed by slaughtering method contains less erythrocytes as compared to the chicken killed by cervical dislocation.

Keyword: Chicken; Slaughtering; Cervical dislocation; Gross; Histology