Quality of aged desert camel meat (Camelus Dromedarius)

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Abstract

The present work aimed to study meat quality of aged desert camel meat. Ten She-camels (3–4) y-old 7, fattened by camel herders in Sudan were slaughtered according to the normal abattoir procedures. Muscle samples were collected from Longissimus thoracis (LT) between the 5^{th} to 8^{th} rib obtained from the right side of the carcasses after 60 minutes post slaughter, placed in plastic bags and transported to meat science laboratory, Faculty of Animal production, University of Khartoum in an insulated box filled with ice. In the laboratory, any visible fat was trimmed and each muscle was then divided into 4 parts, aged for 1, 3, 5, and 7 days at 1–3 ° C. Chemical analysis was carried out to investigate chemical composition, muscle pH, drip loss, meat colour, water holding capacity, lipid peroxidation and vitamin E content. The results revealed that significant change ($p < 0.001$) in chemical composition during ageing time. No significant difference was found in pH values during ageing of muscles. Dry matter and drip losses significantly increased ($p < 0.001$) while moisture and protein contents decreased significantly during ageing; however no change in the other parameters measured. Fat peroxidation tended to increase from 5 days of ageing onwards while vitamin E level increased during the first period of ageing and then decreased. The overall mean of vitamin E in the present study showed high levels (17.8 μg/ g) with no significant differences during ageing. In conclusion, storage time and meat quality of the desert camel meat could be improved due to high levels of vitamin E.

Keywords: Ageing, camel meat, keywords: meat quality, lipid peroxidation

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