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CONCENTRATIONS OF NUTRIENTS IN SIX MUSCLES OF BACTRIAN (*Camelus bacterianus*) CAMELS

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ABSTRACT

Differences between muscles in concentrations of proximate composition, minerals, cholesterol, amino acids, fatty acids and vitamins for the *Infraspinatus* (IS), *Triceps brachii* (TB), *Longissimus thoraces* (LT), *Biceps femoris* (BF), *Semitendinosus* (ST) and *Semimembranosus* (SM) muscles of 9 bactrian camels (2-3 years of age) were investigated. The composition of lean bactrian camel was shown to be highly desirable with a high nutrient density for many nutrients. Although lean meat samples from six muscles were similar in most nutrients detected, several significant differences were found. LT muscle had significantly higher dry matter and fat% than other muscles. The IS and LT muscles had significantly ($P<0.05$) higher cholesterol levels than TB, BF, ST and SM muscles. Concentrations of Myristic (C14:0), Palmitic (C16:0), Palmitoleic (C16:1) and Oleic acids (C18:1n9) were significantly ($P<0.05$) different between muscles. The LT muscle contained a significantly lower proportion of mono-unsaturated fatty acids than other muscles. The ratio of polyunsaturated to saturated fatty acids, which ranged from 0.40 to 0.50, was ≥ the minimum ratio of 0.40 recommended to reduce the risk of coronary diseases in humans. The amino acids and vitamin composition were similar for meat sample from six muscles. Consuming 150 to 200 g of camel meat will cover the daily requirement for an adult man weighing 70 kg for essential amino acids. This information on the nutritional value of camel meat is of great importance for promotion of the product.

Key words: *Camelus bacterianus,* camel, meat composition, meat quality, nutritive value, vitamins