

NUTRITIONAL QUALITY OF DHUB (LIZARD) MEAT (*UROMASTYS AEGYPTIUS* BLANFORD 1874) AND CHARACTERIZATION OF ITS PROTEIN USING ELECTROPHORETIC TECHNIQUES

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The nutritional quality and protein characteristics of Dhub (Lizard) meat were studied. Some essential amino acids (phenylalanine plus tyrosine, threonine, histidine and tryptophan) were lower while isoleucine was higher in Dhub meat protein compared to beef and cow milk proteins. However, the essential amino acid profile of Dhub meat protein surpassed the essential amino acid requirements of the FAO/WHO/UNU for children and adults. *In vitro* protein digestibility and computed protein efficiency ratio values were 90.7% and 2.62, respectively, compared to 89.6% and 2.50 for ANRC-Casein.

Isoelectric focusing showed that most of the sarcoplasmic protein patterns in Dhub were localized in the pH range 3.5-8.5 and they were different from beef, lamb, camel meat, chicken and king mackerel fish. On the other hand, horizontal SDS electrophoresis showed a molecular weight distribution of major Dhub meat protein bands in the range of 18 to 79 KD. Dhub meat protein had a distinguishing band with molecular weight of 200 KD which did not appear in lamb, camel, chicken and fish (King mackerel) meat proteins.

KEY WORDS: Dhub, nutritional quality, protein, electrophoresis

INTRODUCTION

Dhub (*Uromastys aegyptius*) is one of the largest reptiles in Arabia. Adult weight can reach up to 2 kg in some areas, however, the average weight ranges from 800 to 1250 g. This agamid lizard inhabits hard and gravel plains in Arabia, Southern Iraq, Jordan and Syria (Arnold, 1986). Dhub is a diurnal animal and becomes active during the warm part of the day. Dhubs hibernate inside their burrows during the winter season. Dhub feeds on a large variety of plant species which grow in its habitat. It also eats small quantities of insects such as grasshoppers and beetles.

Bedouins of central and northern Arabia have eaten Dhub meat for centuries. They consider it a delicious meat especially the tail part which is known as Oqra. Some people believe that Dhub meat provides strength especially if the animal is hunted during the spring season. Dhub hunting still exist today particularly among young and middle-age people in Arabia.

The chemical composition, fatty acids and cholesterol content of Dhub meat has been studied by Abu-Tarboush *et al.* (1996). Dhub meat has high protein (82.64% on dry basis), low fat content, low saturated fatty acids, and a high percentage of oleic acid. Nutritional quality and protein properties of Dhub meat have not yet been

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