PHYSICOCHEMICAL CHARACTERISTICS, FATTY ACID COMPOSITION, AND FUNCTIONAL PROPERTIES OF THE TRADITIONAL SALTED DRIED MEAT OF CAMELUS DROMEDARIUS FROM ALGERIAN EASTERN SAHARA: "EL KADID"

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ABSTRACT
This is the first report describing physicochemical characteristics, fatty acid composition, and functional properties of traditional salted dried meat El Kadid produced from Camelus dromedarius. The samples were prepared according to the traditional Saharan method. The pH values ranged from 5.01±0.01 to 5.97±0.06; water activity ranged from 0.684±0.003 to 0.689±0.002; ash content ranged from 2.25±0.08 to 2.85±0.02%; moisture level was < 1%, and dry matter content exceeded 99%. The acid index, peroxide index, and acidity were in the range of 13.76 ± 0.14 to 20.66 ± 0.12 mg KOH g⁻¹, 0.45 ± 0.03 to1.0 meqkg⁻¹, and 0.16 ± 0.01 to 1.80 ± 0.02%, respectively. Protein, fat, and salt content were 19.73–22.52%, 3.17–7.14%, and 23.37–57.86% respectively. 19 fatty acids were identified, the oleic acid C18:1 was the predominant monounsaturated fatty acid (1.80%–59.98%) and palmitic acid C16:0 was the major SFA (25.98%–48.31%). Regarding functional properties, Water Absorption Capacity and Oil Absorption Capacity values varied between 2.42 ± 0.03 -5.30 ± 0.05 and 10.34 ± 0.05 to 13.34 ± 0.05 mLg⁻¹ respectively.