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## Antioxidant effects of Lichhi fruit pericarp extract in sheep meat nuggets

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In the present study antioxidant potential of litchi fruit pericarp extract (LFPE) in sheep meat nuggets was evaluated at two different levels 1 and 1.5 % compared to control and butylated hydroxyl toluene (BHT, 100ppm). Antioxidant potential such as total phenolics, radical scavenging activity and ferric reducing antioxidant power of lichhi fruit pericarp extract was evaluated. The different quality parameters and acceptability of the products were also determined. Results showed that LFP extract contains significant amount of phenolics (23.12mg GAE/g dry weight) which have been found to exhibit diverse biological activities. The free radical scavenging activities of 1.5% LFP was found higher than 100ppm BHT. Reducing power of 1% LFPE was comparable to the 100 ppm BHT. Incorporation of both 1 and 1.5% LFPE did not affect pH, cooking yield and sensory attributes of sheep meat nuggets. Total phenolics in product with 1% LFPE was similar to BHT nuggets. Thiobarbituric acid reactive substances (TBARS) number of LFPE nuggets was significantly lower ( $P < 0.01$ ) than control throughout the storage. Although not yet reported in the literature regarding its use in muscle food products, the present study demonstrated that 1.5% Lichhi fruit pericarp extract, being a rich source of various phenolic compounds and antioxidant activity could be incorporated in meat products as sources of natural antioxidants to improve the quality and stability without affecting its acceptability.

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