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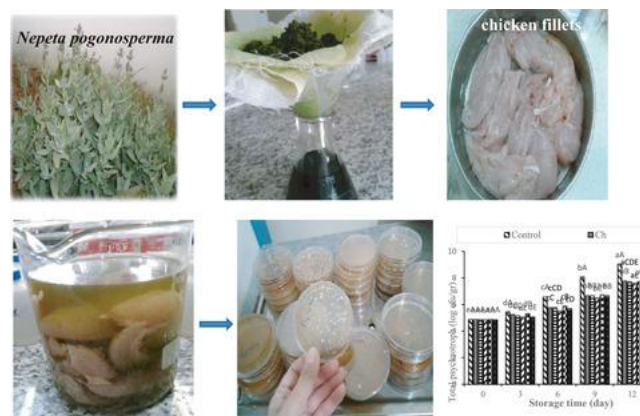
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Chicken meat is highly susceptible to microbial and chemical spoilage due to its high moisture and protein content. The use of edible coatings containing extracts with antioxidant and antibacterial properties that help to extend the shelf life of meat products. In this study, the effect of chitosan coating (Ch) containing *Nepeta pogonosperma* extract (NPe) (0.2% and 0.6%) and their combination on chemical properties (pH, peroxide value (PV), thiobarbituric acid index (TBARS), total volatile basic nitrogen (TVB-N)) and microbial (aerobic mesophilic and psychrotrophic microorganisms, lactic acid bacteria, *Enterobacteriaceae* and *Pseudomonas* sp.) of chicken fillets were studied over a 12-day refrigerated storage period compared to the control sample. The results of NP radical scavenging activity (DRSA) showed that IC_{50} and total phenolic contents values were 94.65 $\mu\text{g/ml}$ and 113.53 mg GAE/g extract, respectively. The results showed that the rate of increase in pH, PV, TBARS, and TVB-N of all coated treatments were lower than control. Microbial analysis results showed a decrease in the growth of different bacteria in chitosan-treated combined with NPe compared to the control sample during chilled storage. Chicken fillets with chitosan and 0.6% NPe displayed a longer shelf life compared to other samples.

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