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Quality, microbial and sensory characteristics of fish fingers maed from treated silver carp (*Hypophthalmichthys molitrix*) fillet by salt and sugar solutions during refrigerated storage

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Abstract

This research to evalute the physicochemical, microbial and sensory characteristics of effects of fish fingers made from treated silver carp fillet with salt and sugar solution during storage in refrigerator (4˚C). After treating the fillets (about 100 g weight) with cold %10 salt and sugar solutions (4˚C) for 30 min, and allowing them to drain for 15 min in refrigerator, fillets were minced and then fish fingers were prepared, packaged and storage in refrigerator for 15 days. The treatments of study were as: treatment 1(T1, Control sample), treatment 2 (T2, %50 salt+ %50 sugar), treatment 3 (T3, %75 salt+ %25 sugar) and treatment 4 (T4, %100 salt). Physicochemical analysis such pH, total volatile bases (TVB-N), thiobarbituric acid (TBA) and proxide value (PV), microbial such as (total viable count (TVC), psychrophilic count (PTC) and inoculated into Staphyloccocus aureus (Staph)) and sensory analysis (texture, smell, taste, color and total acceptance) werw done during 15 days refrigerated storage of samples. Results showed that by increasing the storage time, the content of moisture decreased and pH levels increased significantly ($p< 0.05$). TVB-N, TBA and PV contents were the lowest in T2 and had a significant difference compared with the other treatments ($p< 0.05$). Among the treated samples, T2 showed lower TVC, PTC and Staph count. T2 was introduced as the best one among the samples according to sensory analysis.

Key words: Silver carp, Fish finger, Salt and sugar solutions