Suppressive effect of sodium chloride on the deterioration of minced fish meat during storage

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summary

Content of total nucleotide such as ATP, ADP, AMP and IMP of fresh meat of Silago japonica was 7.9 umol/g and IMP accounted for more than 90% of the total nucleotide. Content of inosine (HxR) and hypoxanthine (Hx) of the fresh meat was low, 1.4 umol/ g. During storage of minced fish meat without NaCl in refrigerator (+5°C), content of the nucleotides decreased and those of HxR and Hx increased, after 13-day storage Hx accounted for 90% of the total nucleotide and related compounds. When minced fish meat with NaCl was stored in the same condition, formation of Hx was suppressed that is, after 13-day storage Hx accounted for 40%. In the case of frozen storage of minced fish meat, formation of Hx was also suppressed by adding NaCl before storage, although formation of HxR was accelarated. Breaking force of boiled minced meat ball made from storage minced fish meat was decreased by 50 - 60% of that made from fresh fish meat. The decrease of breaking force during storage was suppressed by adding NaCl to the fresh minced meat before storage. Sensory evaluation of the boiled minced meat ball was decreased during storage in both refrigerator and freezer. The decrease was suppressed by adding NaCl before storage.