Inactivation of *Listeria monocytogenes* and *Salmonella Enteritidis* in dry-cured ham by combined treatments of high pressure and the lactoperoxidase system or lactoferrin

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Abstract

The effect of high hydrostatic pressure (HHP) at 450 MPa for 10 min combined with the lactoperoxidase (LP) system or lactoferrin (LF) on the survival of *Listeria monocytogenes* and *Salmonella Enteritidis* in sliced dry-cured-ham during 60 d at 8 °C was investigated. Levels of *L. monocytogenes* and *S. Enteritidis* decreased by HHP, whereas were not affected by the LP system or LF applied individually. A synergistic antimicrobial activity was detected on *S. Enteritidis* at 450 MPa with the LP system or LF. Differences in texture parameters were low and diminished at the end of storage. Lightness (L*) increased with combined treatments, although differences were attenuated at the end of storage. Redness (a*) values tended to decrease by HHP applied alone or in combination with antimicrobials.

Industrial relevance: Microbial inactivation by high pressure in combination with the lactoperoxidase system or lactoferrin against *L. monocytogenes* and *S. Enteritidis* in sliced dry-cured ham during refrigerated storage was improved. Color and texture were slightly changed by treatments