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Changes in Bioactive Compounds and Bioactivities of Chikso Rump and Loin Cuts during Wet Aging

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We aimed to identify the changes in the bioactive compound contents and bioactivities of Chikso rump and loin cuts during wet aging. The beef rump and loin cuts were obtained from 30-mon-old Chikso steers (n=3; meat quality grades 2-3). Each cut was divided into four blocks, which were randomly assigned to each aging period (days 0, 7, 14, and 28). The blocks were vacuum-packaged and aged at 4℃. Bioactive compounds (anserine, betaine, carnitine, carnosine, and creatine) were analyzed using high performance liquid chromatography. Bioactivities of beef were evaluated through antioxidant and angiotensin-converting enzyme inhibitory (ACEI) assays. Bioactive compounds in the beef rump were not significantly changed during aging, whereas anserine and carnosine contents in the beef loin were significantly higher on day 14 compared to day 0. The radical scavenging activity of beef rump significantly reduced with increased aging time. However, the highest ACEI activities of beef rump and loin were found on days 14 and 28, respectively. Our result provides basic information on the changes in the bioactive compound contents and bioactivities of Chikso rump and loin during wet aging, which could be valuable for the establishment of optimal aging conditions for value-added Chikso beef production.