Effect of the addition of dry extracts of yeast (saccharomyces cerevisiae) and beer on the sodium content and sensory acceptance of a traditional Colombian sausage chorizo

MESA-LEZ K. (1), AGUDELO-SCHEZ S. (1), DAVID-UGA D. (1), GEL-CARDONA V. (2)

1 BIOALI Research Group, Food Department, Faculty of Pharmaceutical and Food Sciences, Universidad de Antioquia, Medell, Colombia 2 Toxinology, Therapeutic and Food Alternatives Research Group, Food Department, Faculty of Pharmaceutical and Food Sciences, Universidad de Antioquia, Medell, Colombia

In the year 2021, approximately 41 million people in the world died from non-communicable diseases (NCDs), including blood pressure and cerebrovascular pathologies, caused by bad habits such as sedentary lifestyles, poor diet, and excessive consumption of foods with high sodium content. To mitigate the above, the WHO and PAHO have created plans for healthy eating and reduction of sodium consumption; in Colombia, Resolution 2013 of 2020 seeks to gradually reduce the sodium content in food. The objective of the present study was to evaluate the effect of the addition of two types of dry extracts: yeast (EL) and beer (EC), on the sensory acceptance of a traditional Colombian sausage. The methodology included the preparation of sausages with pork, vegetables and spices, as contemplated in NTC 1325 of 2008. In general, 5 sausage formulations were made, F1(0.6%EL), F2(0.9%EL), F3(0.6%EC), F4(0.9%EC) and F5BC (standard), for which the theoretical sodium content was determined by mass balance, taking into account the technical data sheets of the raw materials; finally, the sensory analysis was performed according to GTC 293 of 2018 and NTC 3930 of 2010 with a total of 60 untrained judges. As results, the sodium content for F1(0.6%EL), F2(0.9%EL), F3(0.6%EC) and F4(0.9%EC) was 394.65 mg/100g, 284.03 mg/100g, 392.17 mg /100g and 280.32 mg/100g, respectively; while for the standard (F5BC) the content was 629.02 mg/100g. Regarding sensory analysis, the formulation with the highest acceptance was the standard (F5BC), followed by F1(0.6%EL), F3(0.6%EC) and with less acceptance F2(0.9%EL) and F4(0.9%EC), the above with a confidence level of 95%. It can be concluded that it is possible to formulate a traditional Colombian sausage "chorizo" ??with different percentages of dry extracts of yeast and beer, complying with the values ??required in sodium by the current national regulations and the guidelines proposed by the WHO and PAHO, in relation to the decrease sodium content in foods; being an alternative for healthy meat products with good sensory acceptance.