SALT CONTENT OF PROCESSED FOODS AVAILABLE IN THE PORTUGUESE MARKET

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INTRODUCTION/AIM

Evidence suggests that current levels of salt consumption across Europe are linked with several chronic diseases. In recent decades, high blood pressure has increased, together with the consumption of processed foods. World Health Organization (WHO) recommends a salt intake of less than 5 g/day for the prevention of cardiovascular disease.

The aim of this study was to evaluate the salt content of processed foods available in the Portuguese market and to compare the analytical values with the recommended daily intake established by WHO.

MATERIALS AND METHODS

Between 2013 and 2015, 267 processed foods were acquired in food chains and restaurants from the Lisbon region (Portugal).

Samples were distributed among different food categories:
- Pastry
- Bakery products
- Fast-food
- Snacks
- Breakfast cereals
- Nuts
- Soups
- Seeds
- Patties
- Potato products
- Ready-to-eat meals

Salt determination by Charpentier-Volhard method:
- 5 g of sample + 2.5 mL of zinc acetate + 2.5 mL of potassium ferrocyanide
- Filtration (Whatman n.º1)
- + 1 mL of nitric acid + 10 mL of silver nitrate
- Titration with potassium thiocyanate until orange colour

RESULTS AND DISCUSSION

- In Figure 1, an overview of minimum and maximum values for salt content according to the different processed food categories is shown.
- High amounts (>2.5 g/100 g) of salt were quantified in some of the categories of the analysed processed foods, namely snacks, seeds, potato products and nuts.
- As an example, for the category of patties, if we consider one portion of a curd cheese pie (193 g), the intake of salt can reach 45% of the recommended value.
- For snacks, the regular portion size according to the packages is 35 g. One portion of a salty snack can contribute with 31% of the salt recommended daily intake.
- Among the analysed fast-food burgers, the portion size can vary between 126 and 290 g, which means that the salt intake of one portion can reach 2.62 g.

CONCLUSIONS

Up to now food industry has developed efforts to decrease the salt content of some food products, namely bread. However, there are still foods with high salt content and from a nutritional point of view this should be a priority area of intervention. The obtained results are an effective assessment of the current salt content in foods which will be important for further reformulation strategies and to monitor the progress in the next years.

ACKNOWLEDGEMENTS

This work was funded by INSA under the project “PTranSALT” (2012DAN829). Tânia Gonçalves Albuquerque acknowledges the PhD fellowship (SFRH/BD/99718/2014) funded by the FCT, FSE and MEC.