

Fatty acid composition of traditional sausage produced in Kosovo

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Introduction

Sausage is a well-known meat product that is produced by combining the right ingredients in the right proportions with a controlled process and structured design. Based on classification of sausages given by Savic (1985), the traditional sausage of Kosovo falls in the group of precooked non fermented sausages. Sausage contains saturated fatty acids, monounsaturated fatty acids and polyunsaturated fatty acids, making it a good source of fatty acids in the human diet. Fatty acids are energy-supplying components, essential fatty acids have been positively correlated to reduce cardiovascular disease, cancer prevention, optimal brain and eyesight functioning, hypertension, and neurological or neuropsychiatric problems in several studies. To the best of our knowledge, this is the first study on the fatty acid composition of traditional Kosovo sausage. The aim of this study was to determine the fatty acid composition of traditional sausage.

Methods

Traditional sausages were provided by a local sausage manufacturer in Kosovo. Sausage were approximately 3 cm in diameter and 45 cm in length. Three traditional sausage (2 kg each) were produced for the study and dried for 12 h at 80 °C. Figure 1 shows the fatty acid determination by Gas Chromatography method.

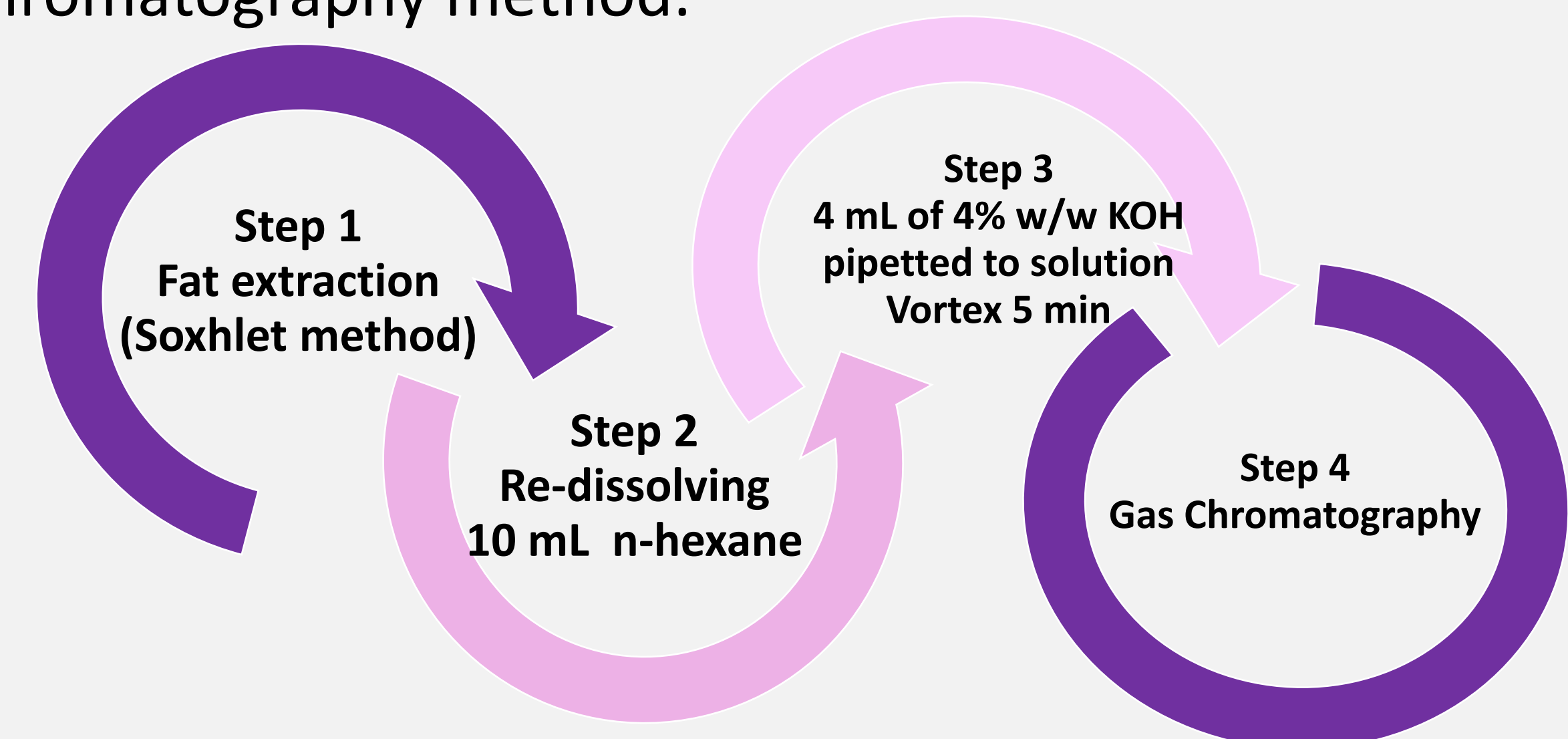


Figure 1. Fatty acid determination by Gas Chromatography

Results

Saturated fatty acids were the major fatty acids detected in traditional sausage of Kosovo (Figure 2). The main saturated fatty acids were palmitic acid (C16:0; 30.25%) and stearic acid (C18:0; 18.78%), (Figure 3).

Oleic acid (C18:1; 34.37%) was the main representative of the monounsaturated fatty acids, while linoleic acid (C18:2; 2.27%) was the ones of polyunsaturated fatty acid (Figure 4).

The ratio of the total saturated fatty acids and total unsaturated fatty acids was 0.7.

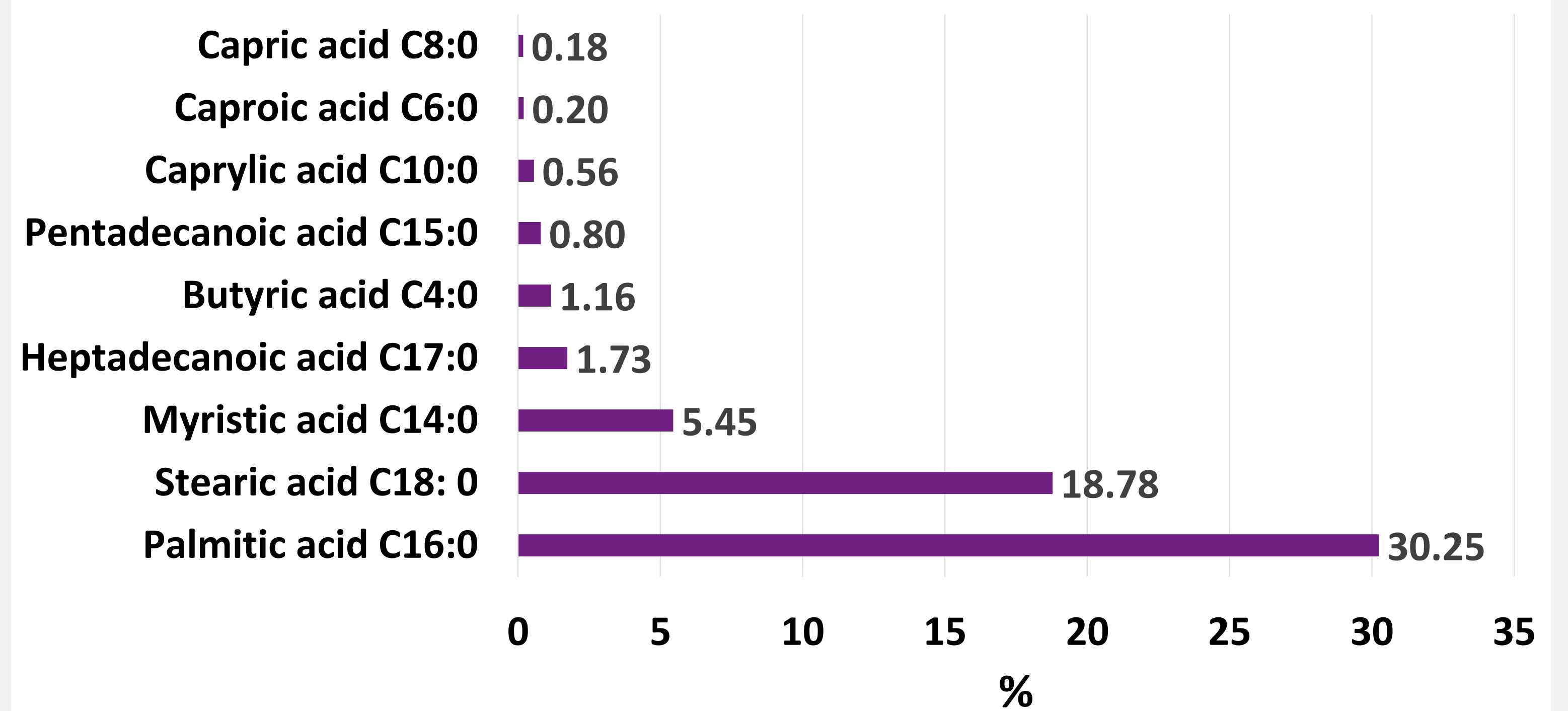


Figure 3. Saturated fatty acid content in traditional sausage

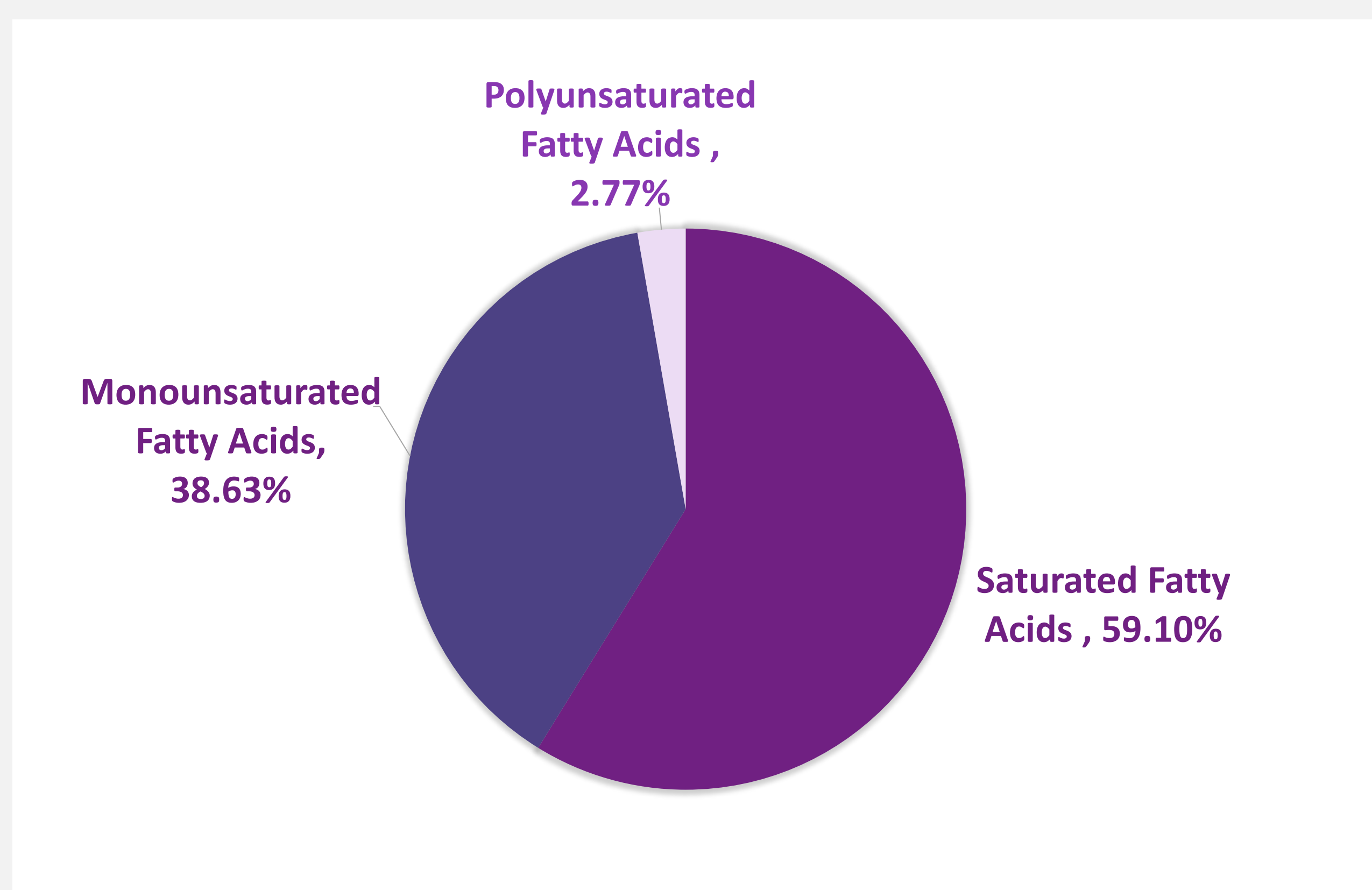


Figure 2. Fatty acid content in traditional sausage

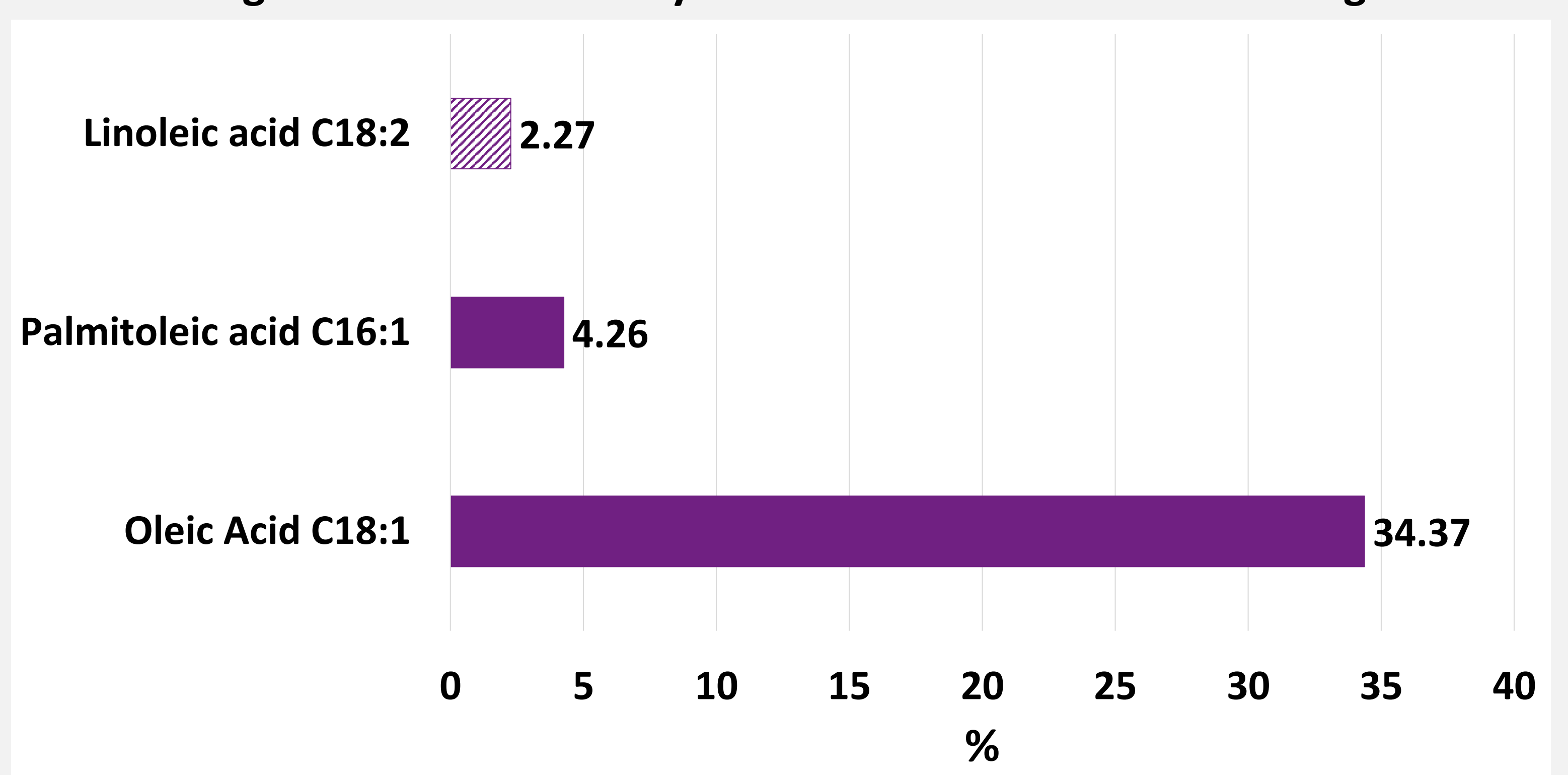


Figure 4. Monounsaturated and polyunsaturated fatty acids in traditional sausage

Conclusions

The traditional sausage of Kosova contains low amount of healthy polyunsaturated fatty acids and high amount of saturated fatty acids. These differences are influenced by the technology of sausage production, so it is necessary to improve the technological process of sausage production in order to produce a more nutritious and healthier product.

Acknowledgment

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References

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