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9TH INTERNATIONAL CONGRESS VETERINARY SCIENCE AND PROFESSION

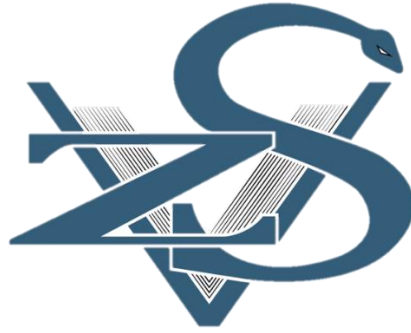
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**“VETERINARY SCIENCE AND
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APPLICATION OF HISTOLOGICAL AND HISTOCHEMICAL METHODS IN KULEN COMPOSITION ANALYSIS

Vladimir Gajdov¹, Anita Radovanović¹, Tijana Lužajić Božinovski¹, Danica Marković¹, Silvana Stajković², Ivan Milošević¹

¹*Department of Histology and Embryology, Faculty of Veterinary Medicine, University of Belgrade, Serbia*

²*Department of Food Hygiene and Technology, Faculty of Veterinary Medicine, University of Belgrade, Serbia*

Histological analysis of meat and meat products allows the evaluation of the content of animal and plant tissues and could provide information on the quality of the raw material used and the quality of the processing steps and possibly identify different tissues prohibited by regulations.

To evaluate the advantages of histological methods for meat composition analysis, six samples of dry-fermented sausage *kulen* were studied, one of which was produced under domestic conditions, while the other samples were commercial products sold in local markets. The samples were subjected to classical histological preparation. The slides obtained were stained with hematoxylin-eosin, Masson-Goldner, toluidine blue and periodic acid-Schiff/Alcian blue. The content of muscle, fat and connective tissue was determined by histomorphometric analysis.

Histological analysis of the composition of the dry-fermented sausage *kulen* revealed the following results: the presence of muscle, fat and dense connective tissue was confirmed; blood vessels, glandular epithelium, peripheral nerves, cartilage and plant tissue were identified. Histomorphometric analysis revealed that the products contained an average of $54.45 \pm 2.52\%$ muscle tissue, $7.27 \pm 1.38\%$ connective tissue and $19.82 \pm 3.24\%$ adipose tissue.

These results suggest that by using histological methods, it is possible to identify various permitted and prohibited animal tissues in dry-fermented sausage *kulen*, so that they can be used as a complementary method to standard chemical analyses in compositional analysis. It is also possible to confirm the presence of various plant tissues, although additional histological methods must be used for their accurate identification.