

## **Abstract**

Meat is rich in protein, minerals, and vitamins and therefore a main source of the human diet. Meat products are usually made from processed red meat as well as preservatives such as nitrate, to improve the overall quality of the food. Histology of meat is mainly composed of skeletal muscle fibers, water, adipose and connective tissues. Growing rate of evidence suggests that unauthorized ingredients or tissues in meat products are quite common, and this alters the product quality and safety. Histological methods make it possible to examine the composition of meat products directly; hence these methodologies are largely used to detect unpermitted herbal and animal contents. Histological and histometric methods are also used to test the percentage and quality of meat in meat products. Nowadays, there is an increase of meat and animal products consumption worldwide. Due to the economic value of meat, the likelihood of using unauthorized tissue is possible in meat products. Based on these observations, the aim of the present study is to apply morphological method for detection of unauthorized tissues in processed meat products. Histological methods make it possible to examine the composition of meat products directly; hence these methodologies are largely used to detect unpermitted herbal and animal contents. Histological and histometric methods are also used to test the percentage and quality of meat in meat products. In the present study the amount of invalid tissues in sausage products of Zahedan was evaluated. The results confirmed the additional invalid tissues in sausage products of Zahedan. The most invalid tissues include skin, gizzard and osteochondron compounds. The histological evaluation also confirmed the additionally used tissues in sausage products of Zahedan but the frequency of the various products.



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**The Thesis Submitted for the Degree of doctor of professionals (in the field  
of veterinary medicine**

# **Presence of invalid tissues in sausage products of usual markets of Zahedan: histologic evaluation**

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**jun 2018**