

Histological features of tonsils in pigs of different ages

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Introduction

Tonsils are secondary lymphoid tissues located at the openings of the digestive and respiratory tracts, where they play the key role of identifying antigens that belong to pathogens and initiating the immune response. Many pathogens use the tonsils as an entry site into the organism, starting their replication in this tissue.

Objectives

To determine the prevalence of certain histological findings in pig tonsils, according to age.

Materials & methods

Histological examination of **646** porcine tonsils (H&E).

Creation of a scoring system:

General findings (min 0; max 18)

- Exocytosis (0-3)
- Crypt material (0-4)
- Bacterial colonies (0-1)
- Congestion (0-1)
- Starry effect (0-1)
- + lesional findings

Lesional findings (min 0; max 9)

- Lymphocyte depletion (0-1)
- Epithelial integrity (0-1)
- Crypt integrity (0-3)
- Bacterial colonies (2-3)
- Crypt dilation (0-1)

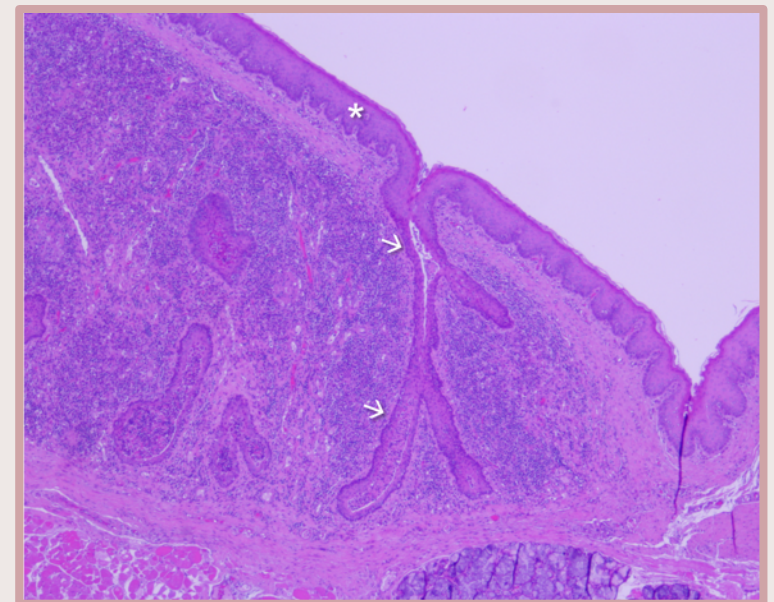


Figure 1. Histology of a porcine palatine tonsil. The stratified squamous epithelium (*) spreads into the parenchyma, forming a crypt (→). H&E, 40x

Results

- **221** autolytic samples (33%) **X**
- **435** non-autolytic samples (67%):

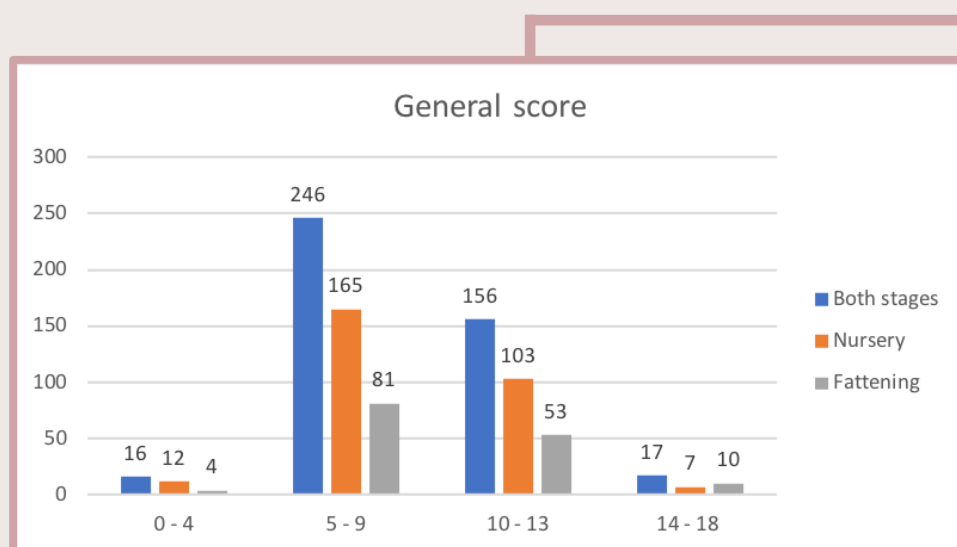


Figure 2. Distribution of samples according to their general scores.

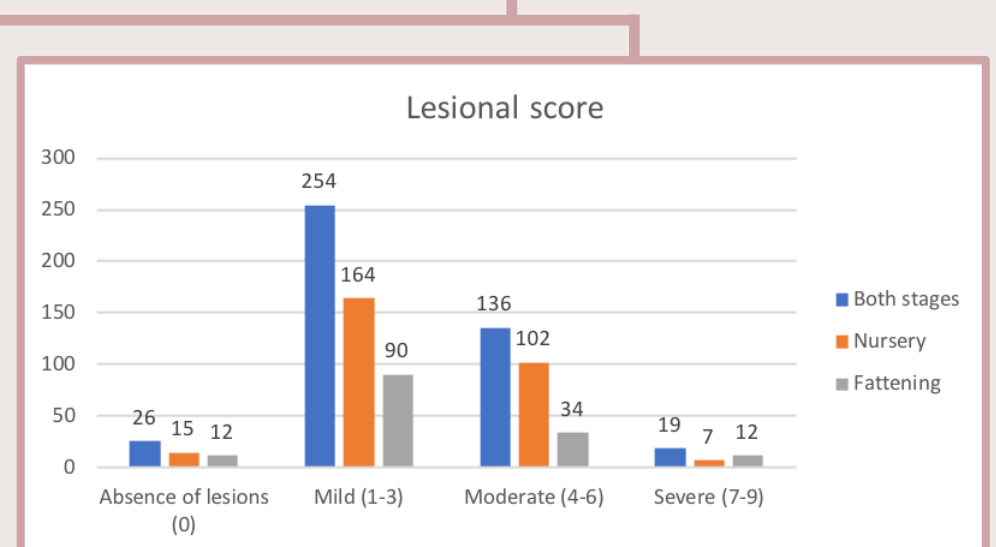


Figure 3. Distribution of samples according to their lesional score.

Conclusions

Little differences were found between histological findings of nursery piglets and fattening pigs and some features appeared to be relatively common.