

## HISTOLOGICAL STUDY ON THE UTERO-VAGINAL JUNCTION ON THE OVIDUCT OF THE LAYING HEN IN ROSS BREED

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### Introduction

The histological structure of the oviduct of the domestic fowl has almost completely been investigated by many workers. They studied mainly the histological structure of the oviduct itself. Richardson (1935) observed in detail the function and histologic structure of the gland of the oviduct. At the present the oviduct is generally divided into 5 portions: the Infundibulum, the Magnum, the Isthmus, the Uterus, and the Vagina. Each portion has its particular structure and physiological function for egg production. The region connecting the uterus and the vagina was studied histologically. It was found that there were a special mucosal zone at the caudal end of the uterus and another at the beginning of the vagina. That was characterized by the following references: Structure: the caudal end of the uterus forms a ring-shaped zone, about 0.5-1 cm wide, immediately before the vaginal orifice. It is covered with a grayish-white mucous membrane and has low, somewhat longitudinally arranged mucosal folds. The histological feature of this zone is the presence of many large simple or branch tubular glands in lamina propria.

### Material and Methods

The oviduct collected from 10 mature white Ross laying hens after slaughtering them and selected samples between terminal portion of the uterus and vaginal orifice that a narrow, ring-shaped zone, about 0.5-1 cm wide. To accomplish fixation, small samples put in formalin 10%. Then, via routine histological methods, 5-10 micron sections were prepared and stained with H&E and PAS.

### Results

As thrown into regular longitudinal folds distinctly grayish-white and somewhat low. Microscopically, a few tubular glands that located in lamina propria. Glandular epithelium was simple columnar with spherical nucleus and nucleolus, with PAS described above, a characteristic mucosal zone was recognized at the caudal end of the uterus. The structural features are summarized: Macroscopically, the mucous membrane is + granules and 19-21 micron high.

### Discussion

The most important point in this study is presence and growth of special glands in utero-vaginal junction. So this study is different from that of Fujii (1963). Kelany et al (1993) observed these glands and explain that they are coil tubular with PAS+ epithelium. But the glands were observed branch tubular in this study.

### Conclusion

This study shows that the whole structure of oviduct consists of exocrine glands that make different material for egg formation but in the utero-vaginal junction are present special glands that differ from other glands in respect to their shape and size. These glands were distinguished as sperm host glands in this study.

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