

# The Regression and Subsequent Regeneration of an Ovarian Adenocarcinoma in a Turkey

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## Case History

- **Adult female turkey**
- **Ovarian cancer palpated rectally**
- **Only sign of illness: cessation of egg laying**
- **Normal ovary (Figure 1)**
- **Gross ovarian adenocarcinoma (Figure 2)**
- **Tissues collected for histopathology**

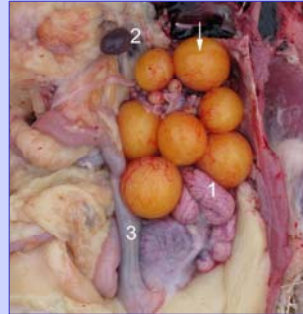


Figure 1: Normal ovary

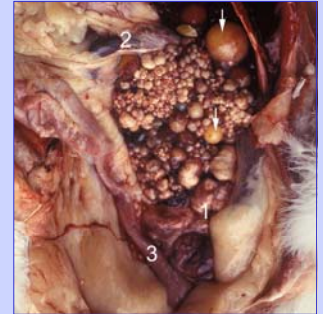


Figure 2: Ovarian adenocarcinoma.

Arrows: ova; 1 = oviduct; 2 = spleen; 3 = large intestine

Table 1: Tumor progression

From regression to regeneration	
Starting score	4
Weeks to regress - short photoperiod	6
Weeks to regenerate to 1 - long photoperiod	7
Score after 12 weeks	4

## Results

- **Normal ovarian histology (Figure 3)**
- **Ovarian adenocarcinoma histology (Figure 4, 5)**
- **Regression – bird exposed to short photoperiod (8L:16D) for 6 weeks (Table 1)**
- **Regeneration – bird exposed to long photoperiod (16L:8D) for 7 weeks (Table 1)**

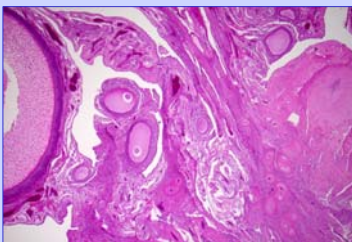


Figure 3: Normal ovary at 40x stained with H&E.

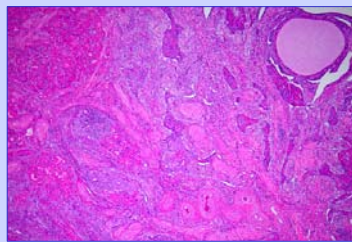


Figure 4: Ovarian adenocarcinoma at 40x stained with H&E.

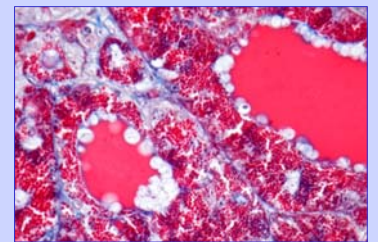


Figure 5: Ovarian adenocarcinoma at 400x stained with trichrome stain.

## Summary Points

- **Short photoperiod causes regression and long photoperiod causes subsequent regeneration**
- **Ovarian tumors can be controlled by photoperiod**
- **Due to similarities with human ovarian cancer, this presents a potential model for research.**

