

The effects of age, parity, and contraception on reproductive tract lesions in Suidae and Tayassuidae



Annie Newell-Fugate, DVM, PhD
Texas A&M University

Background

- Suidae and Tayassuidae species are becoming more popular exhibit animals
- Due to variable breeding success, many species have skewed population genetics and are increasingly given contraception
- Little is known about the effects of the following variables on the development of reproductive tract pathology in these species:
 - Age
 - Parity
 - Parturition gap length
 - Contraception

Goals and Objectives

- **Long-term goal:** develop a set of lifetime reproductive health management recommendations
- **Short-term goal:** determine the common reproductive tract pathologies
- **Specific objective:** determine whether advanced age, nulliparity, parturition gap length, and/or contraception are associated with increased risk for reproductive tract pathology



Hypothesis

Female Suidae and Tayassuidae will be at increased risk for reproductive tract pathology with advanced age, nulliparity, increased parturition gap length, and contraception.

Methods

- Reproductive tracts and histories were pulled from the AZA Reproductive Health Surveillance Program database, directly recruited from zoos, or sourced from NorthWest Zoo Path
- By species, the correlation between age, parity, parturition gap length, and contraception exposure and reproductive tract lesion prevalence was assessed



Results

Species represented:

- Babirusa (n=6)
- Red River Hog (n=10)
- Chacoan Peccary (n=5)
- Visayan Warty Pig (n=5)
- Common Warthog (n=26)



Results

- Contraceptives used: Porcine Zona Pellucida (Babirusa); MGA, MPA, deslorelin (Red River Hog, Common Warthog)
- Contraceptive prevalence by species:
 - Babirusa: 16.7%
 - **Red River Hog: 42.9%**
 - Chacoan Peccary: 0.0%
 - Visayan Warty Pig: 0.0%
 - Common Warthog: 28.0%

Results

- Babirusa had highest prevalence of:
 - follicular cysts (66.7%)
 - endometrial atrophy (33.3%)
 - endometrial hyperplasia (66.7%)
 - pyometra (66.7%)
 - uterine neoplasia (66.7%; leiomyoma only)
- Red River Hog had highest prevalence of adenomyosis (30%)
- Common Warthog had highest prevalence of metritis (41.1%) and second highest prevalence of uterine neoplasia (23.5%-leiomyoma/vaginal leiomyoma)

Results

- Age was positively correlated with pyometra occurrence
- Contraceptive use was positively correlated with adenomyosis prevalence
- Parturition gap length was positively correlated with metritis prevalence



Summary

- Babirusa are most at risk for reproductive lesions
- Risk factors for reproductive tract lesions:
 - Advanced age
 - Prolonged gaps between pregnancies
 - Contraception
- More cases are needed

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Contact Information



Annie Newell-Fugate
Texas A&M University



Anewell-fugate@cvm.tamu.edu

<http://vetmed.tamu.edu/comp-endo-lab>

Phone: 979-845-1744 or 919-602-8954