Dr. Norman Ackerman served the University of Florida, College of Veterinary Medicine with distinction as Professor of Radiology from 1979 to 1994. A concerned teacher of veterinary students and residents of all disciplines, Dr. Ackerman also reached the veterinary scientific community through his writing. His numerous clinically pertinent publications are still today a vital part of the veterinary literature; therefore, it is appropriate this site perpetuates Dr Ackerman’s dedication to teaching. This site is presented in recognition of Dr. Norman Ackerman and his contributions to the field of veterinary diagnostic imaging.

Sponsorship of the display supports the Dr. Norman Ackerman Memorial Fund, dedicated to the teaching of diagnostic imaging residents at the University of Florida College of Veterinary Medicine.
Dr. Norman Ackerman Memorial Radiography Case Challenge

- Colby
- 8 year old F Golden Retriever Dog
History and case presentation

- Colby presents to your emergency clinic with a 2 day history of lethargy, inappetance and polyuria (increased volume urination).
- On physical examination, she is pyrexic.
- You order abdominal radiographs
The uterus is visible as an enlarged, tubular soft tissue structure between the bladder and the rectum, and as soft tissue opaque loops in the caudal abdomen displacing the small intestines cranially.
The homogenous soft-tissue opacity of the uterus, in combination with the clinical signs is most consistent with pyometra.
Pyometra is often able to be diagnosed on abdominal radiographs. Ultrasound can easily be used to confirm the diagnosis.
Conclusion

You have found a soft-tissue opaque, tubular structure between the colon and urinary bladder consistent with an enlarged uterus. Together with Colby’s clinical signs of pyrexia, lethargy, inappetance and polyuria you have a high clinical suspicion of pyometra. Colby didn’t have any vaginal discharge upon presentation so she has a closed pyometra. Surgical hysterectomy is warranted.
Case Follow up

- You advise the owners that closed pyometra is a life-threatening condition and that Colby requires surgery to remove her uterus.
- You stabilize Colby and perform a hysterectomy to remove her uterus.
- You confirm the presence of pyometra by identifying neutrophils on a smear of the uterine fluid.
- Colby recovers well following the surgery.

- Pyometra is the accumulation of purulent material within the lumen of the uterus. Pyometra, in particular closed pyometra (where the cervix is closed preventing drainage of the pus) is a potentially life-threatening condition due to the development of septicemia and toxemia.

- It is common for bitches with pyometra to have developed the disease within 12 weeks of the last estrus cycle; progesterone in diestrus decreases systemic immunity, causes closure of the cervix and proliferation of the endometrium, increasing the risk of bacterial colonization of the uterus.

- The most common pathogen causing pyometra is *E. coli*; a fecal contaminant. *E. coli* contains endotoxin which leads to septic shock and systemic illness, as well as causing polyuria and polydipsia; a common presenting sign.

- Treatment of closed pyometra usually involves removal of the uterus. Open pyometra can be treated medically but decreased fertility may ensue.