What is Your Diagnosis

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History
A two year-old domestic short haired cat was found with a purulent vaginal discharge surrounding the vulva area on the 2nd day after giving birth to 3 kittens. The queen did not show sign of dystocia such as abdominal straining. The fetal skeleton could be palpated via the abdomen. The fetal heart beat could not be detected. Plain lateral and ventrodorsal abdomen radiographs were taken for assessment of the size, location and position of the fetus.

Give your diagnosis and turn to the next page.
Radiographic Diagnosis
Retained macerated fetus

Radiographic Findings and Comments
In lateral abdominal radiographs (Figs. 1 and 3), the huge fetus is shown in a dorsal anterior position with retained forelimbs in front of the maternal pelvic canal. In the ventrodorsal abdominal radiograph (Figs. 2 and 4), the fetus is shown with its head pointing to the pelvic canal with retained forelimbs. Gas accumulation in the uterus (physometra) surrounding the fetal skeleton can obviously be seen in both radiographs.

In this case, if the dystocia were caused by fetal forelimb malpositioning, the fetal head should have been in the pelvic inlet with the obstruction at the fetal shoulder. However, the radiographic findings demonstrate that the fetus is still deep in the uterus or uterine horn. Therefore, secondary uterine inertia may probably be the cause of the dystocia.

Dystocia may be caused by both maternal and fetal factors. The radiographic information can be helpful in the evaluation of fetal affected dystocia especially the fetal positioning relative to the maternal pelvic canal. If the fetus is not located in the pelvic canal then dystocia affected by uterine inertia should be considered. On the other hand, maternal affected dystocia is difficult to evaluate by radiograph because uterine contractility and the size relationship between the fetus and the maternal pelvic canal may be not significant related to the radiographic information. Survey radiographs after parturition can be useful in evaluating the retained fetus.

**Figure 3** Close-up lateral abdominal radiograph

**Figure 4** Close-up ventrodorsal abdominal radiograph