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Case Report

Hydrometra in Domestic Rabbit- A Case Study

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ABSTRACT

Present communication records the occurrence of hydrometra in a breeding White Giant rabbit doe from a sub-temperate climate of India.

Key Words: Rabbit, White Giant, hydrometra.

Hydrometra, the accumulation of the sterile watery fluid within the uterine lumen, is an uncommon condition in small animals (Morrell, 1989). The condition is always associated with high progesterone levels secreted by a persistent, functional corpus luteum, cessation of cyclical activity and variable degrees of abdominal distension. It is common in un-bred females, however, not observed in breeding female rabbits (Morrell, 1989). The present communication reports a case study of hydrometra in breeding White Giant rabbit doe.

A White Giant rabbit doe of two and half years of age was presented for the treatment of hind quarter locomotion problem. The affected animal had visibly swollen and distended abdomen. The affected animal was a selected breeding female reared for the production of meat breed rabbit germplasm at the North Temperate Regional Station of Central Sheep and Wool Research Institute located at Garsa in the district of Kullu of India. The doe previously delivered litter twice with an average litter size of 6 at birth.

Since last kindling (one and half year back), the doe was bred 5 times but failed to conceive and kindle. Clinical examination revealed hindquarter fallen down, affecting primarily the left limb resulting into staggering gait. A point of injury was noticed below the flank region as observed during general examination. Initially it was suspected as a case of posterior paralysis. The animal was sacrificed and the genital organs were taken out for studying the abnormalities.

Both the uteri were distended, enlarged and were fluid-filled. The entire genital structure occupied most of the ventral part of the abdomen. The fluid appeared was dark in colour (coco-like) with some black particles floating freely within it. One of the salpinx was inflated. Both the ovaries were small and inactive bearing numerous small follicles without apparently visible corpora lutea on the surface. Both the os-cervix was congested. Mucous membrane of vagina was pale, however, a mild vascularization was observed towards the vaginal fornix surrounding the os-cervix. The weight of the entire reproductive organ (including fluid content) and only fluid content 520 and 440 g, respectively. The weight of the left and right uterus including the fluid content was 235 and 205 g, respectively. The total fluid volume quantified was 445 ml of which 236 and 209 ml was in the left and right, respectively.

The etiology of hydrometra in the present case is unclear. Hydrometra was reported previously in un-bred Sandy Half Lop rabbits those were used for serum production (Morrell, 1989). However, in the present study, the condition was recorded in a parous doe following breeding. Rabbits are reflex ovulators and breeding follows ovulation. Post-ovulatory rise in progesterone increases the secretary activity of the endometrial glands resulting into functional closure of cervix, which finally develops into pseudopregnancy (Stein, 1975).

Persistence of pseudo-pregnancy may be the possible reason for the development of hydrometra in the present case as described previously (Morrell, 1989). Further, the uterine

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fluid in this study was dark coco-like colour instead of clear as reported earlier (Morrell, 1989).

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