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**Prolapsus Vagina in a Deer Without Pregnancy; Gastric Foreign Body and Gastrolith**

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**ABSTRACT**

In the case, detected findings in a 10 year old female deer with history of chronic pain and recurrent prolapsus vagina and effects of these findings on prolapsus vagina were examined. During treatment vagina was torn and the animal died during operation. In necropsy ball of string with size of 24×7 cm, 2 gastroliths with size of 4×3×3cm and 13×7×5cm, respectively and prolapse in vagina was noticed. Cause of recurrent prolapsus vagina was thought to be foreign body and gastroliths which was filling large part of rumen which in turn causing elevated intraabdominal pressure and chronic pain. In this case, consumption of non-food items due to nutritional deficiencies (Pica) observed also in wild animals. It has been realized that these items lead to predisposition to formation of gastroliths. In conclusion, digestive system disorders and foreign bodies which can be found in rumen should be considered as a cause of vaginal prolapse which has many different causes in clinical examination and necropsy.

**Keywords:** Deer, foreign body, gastrolith, necropsy, prolapsus vagina.

**Introduction:**

Vaginal prolapse is often observed in pregnant cattle and sheep at third trimester (1). Although there are unclear points about the formation, increased intraabdominal pressure during the last period of pregnancy, estrogen and relaxin which causes relaxing of pelvic ligaments and surrounding tissue are thought to be predisposition factors of prolapsus vagina (2,3,4,5). Also, in situations like abdominal fat accumulation and grazing on estrogen rich soil predispose for prolapsus vagina (1,5,6,7). Likewise in sheep and cattle breeds, genetic disposition is mentioned

(8). Low prolapsus vagina rates in grazing animals, suggests lack of exercise to be one of the predisposing factors (2).

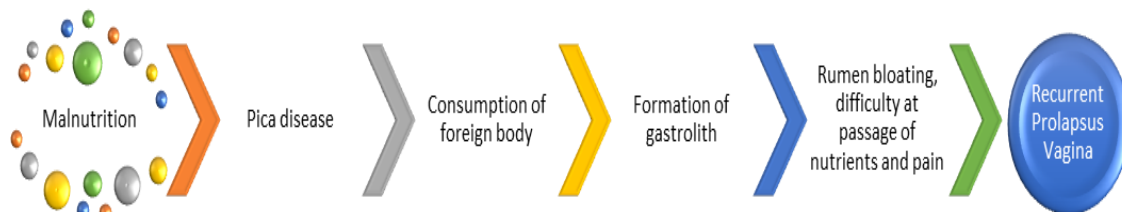
Pica disease which occur with lack of phosphorus, salt in feed is consumption of substances such as soil, rock, brick and paper (9). This condition predisposes to formation of gastrolithes (Figure 1). When these foreign bodies and phytobezoars, trikobezoars and gastrolithes which reside in rumen reach a certain size; obstruct passage from forestomachs to abomasum with proceeding to omasum and abomasum (2, 10).

In necropsy of animal with normal nutrition status and swollen abdomen, total prolapse of vagina with cervix uteri and bleeding of this part was seen. Serosal vessels of intestines was hyperemic. Ball of string with size of 24×7 cm, 2 gastrolithes with size of 4×3×3cm and 13×7×5cm, respectively in rumen was spotted (Figure 2). Ecmotic hemorrhages were present in epicardium. In microscopic examination, hepatitis, nephrosis, peribronchitis, emphysema, cardiac hemorrhage and myocardosis have been detected.

In this case, consumption of non-food substances due to nutritional deficiencies also in wild animals and predisposition to gastrolithes which has a central focus with these foreign bodies in rumen was noticed in accordance with literature. These foreign bodies and gastrolithes which leads to obstruction of food passage causes stomach enlargement due to these foreign bodies and accumulating food. Increased pressure due to increased rumen volume was thought to be cause of prolapsus vagina (Figure 3). Also less mobility in zoo due to separation natural life thought to be considered as affects on digestive system motility mainly on rumen.

In literature reviews, it has been found that cervical prolapse was seen in deers after birth but prolapsus vagina in non-pregnant deers was not seen (3). The deer presented in this case was not pregnant.

**Figure 1:** Relationship of pica disease, foreign bodies and prolapsus vagina.



**Figure 2:**Ball of string and gastrolite



**Figure 3:** Increased rumen volume was thought to be cause of prolapsus vagina



As a result, in clinical examination as well as in necropsy, digestive system disorders and foreign bodies which can be found in rumen should be considered as a cause of vaginal prolapse which has many different causes. Rumen content in necropsy, while being overlooked; with this case, it is shown the importance of examination of all organs which is believed to have no connection to the clinical manifestations in necropsy.

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