

Popular Article

Reproductive Problems in Camels

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Abstract

The most efficient domesticated animals in arid and semiarid regions of the world are camels. There hasn't been as much research done on camel reproduction issues as there has been on bovine issues, for instance. There is a need to elucidate the problem in detail in order to overcome the problem of reproduction.

Introduction

Camels are belonging to the genus *Camelus* with "humps"—distinctive fatty deposits—on its back. Camels have been domesticated for a long time and serve as livestock, producing food (meat and milk) and fabrics (fibre and felt from hair). The total camel population in India is 0.25 million (DAHD, 2019). The total camel population has decreased by 37.1% over previous livestock censuses. Rajasthan supports 85.2% of India's camel population. Best breeding management plans are required to expand their population, but regrettably, female camelids' reproductive diseases are high. The most important reproductive disorder according to the responders is uterine infection (60.2%) followed by obesity (22.3%) then physiological conditions (hormonal disturbances; 7.8%), adhesions (3.9%) and repeat breeders (2.9%). The primary cause is an ovarian and uterine illness, however specific abnormalities of the ovary, ovarian bursa, uterine tube, uterus, vagina, cervix, and vulva are also described.

Uterine disorders in camels

Uterine problem is one of the main reasons female camelids struggle to conceive. Some congenital uterine disorders are uterus unicornis and uterine infantilism. The disorder uterus unicornis also known as segmental aplasia is characterized by underdevelopment of the left uterine horn. Another congenital disorder known as uterine infantilism causes the uterus to be fully flaccid and to be only half to one-third of its usual size

The abnormalities of the uterus are the leading causes of infertility. Some other uterine disorders such as metritis, pyometra, mucometra, and endometritis are leading cause of infertility. Pyometra is the medical term for when the uterus enlarges owing to the accumulation of fluid that can range in volume from a few millilitres to several litres. In metritis, condition animal shows systemic signs of illness like fever and also having fetid odour and enlarged uterus. Ultrasonography is the best choice for the diagnosis of all uterine disorders.

Ovarian disorders in camels

The second most frequent cause of camel illnesses that impair fertility is known to as ovarian abnormalities. Congenital hypoplasia is the most common finding in post-mortem examination of infertile camelids. Acquired ovarian disorders are referred as complete inactivity of ovaries. Other conditions are ovarian neoplasms, ovulation failure, ovaribursal inflammation, persistent luteal activity, cystic conditions, and luteal insufficiency. The probability of cystic Conditions of Ovary disease varies from 8% to 30%. In this disease cystic follicles are developed which become haemorrhagic and later on are luteinized. This condition may also develop in non-mated females due to FSH and eCG (Belina *et al.*, 2021). Ovulation Inactivity arises from disrupted follicular activity, which can be either an incomplete or a disturbed follicular wave. The management, feed, and body score of the camels as well as their age and lactation all have a significant role in this condition. This activity is also caused by mineral deficiencies and the overuse of exogenous hormones like progesterone and oestrogen. Furthermore, when there is a history of early embryonic death between days 25 and 60, the condition known as luteal insufficiency is frequently described. In particular, nursing camelids with small follicular size and females with weak luteal activity or corpus luteum may be suspected of having the disease. Although studies are lacking in clarity, progesterone levels, liver metabolism, obesity, and stress all play significant roles in this condition (Picha *et al.*, 2010). Infertile camelids have a reported 3.2% chance of developing ovarian malignancies. Teratoma and granulosa cell tumour (GCT) are the two most frequent ovarian neoplasms. Ultrasonography is used to identify both of these by presence of a solid, white stone-like mass due to the inclusion of several materials, including hair, skin, cartilage, bone, etc. The camel exhibits male-like behaviour in the context of GCT. Other reproductive disorders including vaginitis and cervicitis impair fertility in camels. Diagnosis of reproductive disorders done by ultrasonography rectal palpation and vaginum speculum. For the treatment of uterine infection, the use of prostaglandins has been recognized in routine therapy. Also, an intrauterine treatment with antiseptics or antibiotics has been found effective.

Conclusion

Reproductive illnesses or disorders affect animal breeding directly or indirectly by resulting in infertility or sterility, which causes significant financial losses for livestock owners.

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