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Dystocia Caused by Uterine Torsion and Surgical Intervention by Cesarean Section in She-Camel (Case Report)

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Abstract

This case was recorded in Basra province, southern Iraq, in February 2018. A case of a pregnant camel was reported in the last days of pregnancy, according to the owner of the animal and the date of the case. As soon as the case was received at the veterinary consulting clinic at the College of Veterinary Medicine - University of Basra, the camel was suffering from labor contractions for two days, without the appearance of fetal fluids or a fetal sac (water bag). The animal was manually examined vaginally, and it was found that there was a twisting of the uterus (uterine torsion) in a counterclockwise direction of 180 degrees. The decision was made by the specialists that a cesarean section should be performed. A cesarean section was performed and a dead fetus was extracted. The necessary dealings were taken after the operation and instructions were given to the owner to take care of the animal and to complete the required treatments.

Keywords: Dystocia, uterine torsion, she-camel, cesarean section

Introduction

Parturition in camelids is a unique process with a variable first stage of labor (2-6 hours) and a short second stage of labor (10 - 45 min) (1). Because of the exceptionally long neck and limbs and the fact that nearly all fetuses are born in an anterior longitudinal presentation (2), a possibility of limb/neck deviation always exists. The incidence of dystocia is low in camels; however, because of the exceptionally long neck and extremities, it is difficult to manage. In most cases of dystocia, intervention occurs during the second stage of labor after observation of a failure of the normal progression of the first stage of labor (3).The maternal causes of dystocia

described for camelids include uterine torsion, immaturity of the female, cervical dilation failure, and rarely uterine inertia (4). All the more, the therapy of uterine torsion by rolling is not readily feasible because of its large size and enormous resistance that would probably be exerted by the animal (5). Most reports depicting therapy of uterine torsion in dromedary camels had utilized cesarean section for treatment. Camelids may show signs of abdominal pain or may simply lie down and appear to be depressed (6).

Case presentation:

Animal description: A 10-year-old she-camel of the Arabian camel breed, a reddish-brown color, has been pregnant for 370 days according to the date of insemination recorded by the owner. The place of animals in the desert of Al-Zubayr city (southeast of Basra city).

Case history: The case has arrived at the consulting veterinary clinic, and she suffers from dystocia for >48 hours, the presence of abdominal contractions, grumbling of the animal with swelling of the vulva due to the intervention of the owner to help the animal extract the fetus but his attempt failed.

Clinical examination results: The she-camel suffers from abdominal contractions (labor) contractions for two days. Absent of fetal fluids or the fetal bag (fetal sac), swelling, and redness of the vulva. The animal was examined manually through the vagina. It was found that there was a counterclockwise uterine torsion at a degree of 180°.

Treatment plan: The level or type of treatment was estimated by surgical intervention and performing a cesarean section to save the mother's life first, with a weak expectation of the fetus's life, since the duration of the start of parturition was more than 48 hours ago, which indicates the expected death of the fetus.

Procedure:

1. Preparation of the animal for the surgery

Stabilizing the animal in a sitting position, washing the Right flank the area with soap and water, shave the lint, then sterilize the area completely and cover it with gauze and immerse it in povidone-iodine in preparation for the cesarean section.

Fluid therapy (sodium chloride and glucose saline) and antibiotics (penicillin-streptomycin at dose 15ml/intramuscular injection, must be given. This would often delay the operation by 2-3 hours but is necessary.

2. Anesthesia

Xylazine is a sedative administered by an intramuscular in a dose (of 0.25 mg/Kg). Local infiltration anesthesia is suggested using lidocaine 2% a dose (90 ml/locally). Regional anesthesia of the surgical site by inverted “L” and line block. (7).

3. Laprohistrotomy

The site of the operation is a paralumbar fossa (Right flank) because the animal is in a sitting position and surgeons can sit parallel to the camel. Incision (30 - 40 cm long) in the middle of the fossa 6 cm below the second lumbar transverse process and parallel to the last rib extending through the skin, muscles, and peritoneum. After incising the skin, the subcutaneous tissues are deflected by blunt dissection, the muscle layers are cut with scissors carefully ligating all bleeding vessels. The peritoneum is grasped with tissue forceps and cuts with scissors. A nick is first made and then the entire peritoneum is cut with scissors guided by the finger. Extreme care must be exercised in cutting the peritoneum to avoid incising the spleen which is just underneath when using the paralumbar fossa as an operative site. The uterus is grasped over

the fetal part (like a limb) and brought to the operative site and packed on the sides with sterile drapes. The uterus is incised along the greater curvature avoiding major vessels. The fetus is taken out and the uterus is flushed with normal saline (2 – 6 liters) and metronidazole. (Figure 1). Before suturing the uterus, uterine suppositories containing antibiotics such as oxytetracycline suppositories/ 5 suppositories are placed inside the uterus to prevent infections. The uterus is sutured using absorbent chromic catgut suture (size 2), in two layers: the first is the Schmiden suture and the second is Lambert to turn the wound edges inward and remove the adhesions. (Figure 2). The muscles are sutured using continuous suturing by absorbent chromic catgut suture (size 2). The skin is sutured using intermittent sutures with nylon (size 2). Local antibiotic (oxytetracycline spray) (figure 3).

Post-operative care

Anti-inflammatory (penicillin-streptomycin at dose 15ml/intramuscular injection), and antipyretic (analgen at dose 20ml/ daily) are suggested to be given for 5 - 7 days along with fluids. Administration of oxytocin (40 IU/ single dose) intramuscular to stimulate uterine contractions. The skin sutures must only be removed after complete healing which maytake up to 20 days.

Actual outcomes

Due to a large number of previous cases similar to this case and the success of the surgical intervention and the survival of the dam, it was decided to perform a cesarean section to save the mother's life first, as mentioned above, in addition to the high price of the camel compared to the price of the surgery to save his life.

Figure 1 Expulsion of the fetus during the caesarian section in she-camel

Figure 2 prepare the uterus for suturing

Figure 3 suturing the skin and local antibiotics using

Discussion

The skin sutures heal poorly in the dromedary camel and the sutures on the muscles may break due to movements of the animal predisposing to a post-operative hernia [8]. However, referral centers have no choice other than to operate whilst it is known that the prognosis would be guarded when dead putrefied fetuses are present (9). However, with an early decision to operate and with sufficient peri-operative care the survival rate of dams is good (10).

Conclusion

Emergency and rapid intervention are one of the most important things that the decision must be taken immediately in the dystocia of the she-camels. Uterine torsion is one of the most common reasons for dystocia in the she-camels, which is diagnosed by external signs, in addition to the vaginal examination. Cesarean section of she-camel needs great work and additional effort, but in the end, it is important to save the life of the dam at least.

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عسر الولادة الناجم عن التواء الرحم والتدخل الجراحي بالولادة القيصرية في الجمال

(تقرير الحالة)

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الخلاصة

تم تسجيل هذه الحالة في محافظة البصرة جنوب العراق في شباط 2018. حيث وردت حالة ناقة حامل في الأيام الأخيرة من الحمل بحسب صاحب الحيوان وتاريخ الحالة. بمجرد استلام الحالة في العيادة الاستشارية البيطرية في كلية الطب البيطري-جامعة البصرة كانت الناقة تعاني من تقلصات الولادة لمدة يومين مضت دون ظهور سوائل جنينية أو كيس جنيني (كيس الماء). تم فحص الحيوان يدويًا عن طريق المهبل حيث وجد أن هناك التواء في الرحم بعكس اتجاه عقارب الساعة بدرجة 180. تم اتخاذ القرار من قبل المختصين بضرورة إجراء العملية القيصرية. أجريت العملية القيصرية وتم استخرج جنين ميت. تم اتخاذ الإجراءات اللازمة بعد العملية وإعطاء التعليمات للمالك للعناية بالحيوان واستكمال العلاجات المطلوبة.