Dystocia in sheep: causes and treatment



Introduction:

Dystocia in sheep means that they have difficulty giving birth. Dystocia is extremely common in sheep and causes the death of many lambs and ewes. A study conducted in New Zealand showed that dystocia accounted for 50% of deaths among new-born lambs. When lambing takes more than one hour after rupture of the foetal membranes it is classed as dystocia (D. Lunau, 2011). Obesity and lack of exercise during late pregnancy increase the chances of dystocia in sheep. Noticing and interfering with dystocia early will result in a satisfactory outcome for both ewe and the lamb. Yearling mothers are much more susceptible to problems than animals that have previously given birth. It was reported that more than 60% of dystocia was diagnosed in yearlings (Z. B. Ismail, 2016).

Causes of Dystocia:

There are many causes of dystocia. Dystocia in sheep can be caused by either maternal or foetal factors. The main causes include foetal postural abnormalities, incomplete dilation of the cervix and cervicovaginal prolapse. The foetal postural abnormalities include head deviation, forelimb flexion, breech presentation and dog sitting position. The main maternal cause was the failure of full cervical dilation (causes 30% of dystocia cases in sheep). Oversized foetus (large head, wide shoulders or just a large foetus in general) and narrow pelvis are huge factors related to dystocia. Common mistakes when dealing with dystocia include allowing the ewe to be in labour too long before intervening, trying to deliver a lamb that is in an abnormal position and applying too much force. If a ewe is in labour (i. e. Stage 2) for thirty-forty minutes with no progress, then intervention is advised. If they are

in labour too long it can lead to a haemorrhage, shock, infection and a dead lamb. The birth canal of a sheep is very small. So it should be ensured that the lamb is positioned properly before it enters the birth canal, as it is very difficult to manipulate the position in the birth canal. Correcting the position of the lamb must be done so before trying to remove the lamb. The correct position of a lamb is the head and front legs coming first through the birth canal, right-side up. It should never be attempted to remove a lamb that is in an abnormal position. Many ewes die because of prolonged manipulation of lambs in the birth canal. It is emphasized by all veterinary professionals that extensive attempts at manual delivery of the foetus are associated with poorer outcomes in relation to the survival of both the ewe and the newborn. Excessive force can result in shock, haemorrhage, infection, fertility problems, and a prolapse of the vagina and uterus is also possible. The force used when assisting with the lambing process should be minimal. The cervix should never be forced open! It will dilate as much as it can naturally. Causing extra unnecessary pain should be avoided. Basically, simple assistance should be provided if the assistance doesn't help make progress then a caesarean section must be performed. A delayed delivery can result in a dead lamb and an injured ewe (A. H. M. Ali, 2011). Dystocia shouldn't cause problems in the future however if the above mistakes are made then serious problems may be encountered.

Caesarean Section:

A caesarean section is performed on 1 in 5 ewes (L. Wilson, 2007). Early intervention for performing a caesarean section results in the delivery of live lambs and much healthier ewes. The most common complication after

performing a caesarean is a retained placenta, which is more likely to occur in ewes that received prolonged assistance. Vaginal or uterine tears are common when surgical intervention was delayed.

Surgery is done on the right side of the ewe. The reason behind this is that the uterus is easily accessible on the right side, it is right under the skin. If it was done on the left side, then the intestines and many other organs must be removed to get to the uterus. The ewe should be placed on some straw bedding in right lateral recumbency. The legs and head are tied to stop the ewe from moving. Sedation may or may not be administered to the ewe, to help with positioning of ewe for surgery. However, sedation is not advised if it is expected to deliver a live lamb because of possible severe cardiopulmonary and nervous depression. Most of the left side is clipped, the skin is scrubbed with some warm water and an iodine is applied, to ensure the area is as clean as possible. The line of incision is numbed with local anaesthetic (e. g. 1% lidocaine). The incision should be made vertically down the left paralumbar fossa or low flank and at 20cm in length. When making the incision, care should be taken to ensure the rumen wall isn't cut into. This is easily done as the muscle layers are very thin. The uterus is pulled externally, to prevent the spillage of foetal fluid into the abdominal cavity, and an incision is made along the greater curvature. It should start between the hooves of the foetus, to avoid cutting the foetus. A sterile scissors should be used to cut the uterus along the leg, starting from the incision made at the hooves. The amniotic fluid pours out of the uterus and the lamb is pulled out. The lamb is then passed on to an assistant. The assistant must swing the lamb upside down to clear the fluid from its nose. The lamb should be

rubbed dry with a towel and their breathing should be stimulated. The uterus is then sutured using a double layer of suture pattern with a non-synthetic absorbable suture material. The abdominal cavity is washed out with sterile saline in case some amniotic fluid dripped in. The peritoneum and muscle layers are the closed using absorbable suture material in a simple continuous pattern. The skin is closed using non-absorbable sutures in a simple uninterrupted pattern and cleaned. Post-operative antibiotics (e. g. meloxicam or Flunixine meglumine) and nonsteroidal anti-inflammatory drugs are administered once the ewe is cleaned up and these must continue for 5 to 7 days. The skin sutures are removed within 10-14 days. (A. O'Brien, 2015, Z. B. Ismail, 2016).

Conclusion:

It is obvious that timing is important when dealing with a case of dystocia. If a sheep is in labour too long, the outcome is usually a dead lamb and an extremely injured ewe, or possibly even a dead ewe also. Primiparous mothers are commonly diagnosed with dystocia, so extra care should be taken with these ewes when they start lambing. The survival of both the ewe and the lamb is hugely influenced by the time delay between the start of labour and the presentation for a caesarean section. Dystocia is a common problem but extra care should be taken to ensure other problems aren't encountered when assisting the animal. Dystocia shouldn't affect the health of the sheep in the future. The main points to remember when dealing with dystocia is: use minimal force, never try to deliver a lamb in an abnormal position and never allow a ewe to be in labour for too long (30-40 minutes in Stage 2) before intervening.