

Chlamydial Abortions in Sheep and Goats

History

- Reported for the first time in 1959 in Germany, then diagnosis of the disease occurred in Bulgaria, Spain, USA, France, India, Japan, United Kingdom, Chad, Greece, and Tunisia.
- In many areas it is the second cause of abortions, and in areas where Brucellosis is controlled it is the number one cause of infectious abortions.
- It is seen mostly in ewes, but can have an effect on goat farms also.

Cause of Chlamydial Abortions

- It is caused by a bacteria known as *Chlamydia psittaci*. This organism will spread through infected fetuses, placentas, vaginal discharges, feces and nasal secretions. The organism enters the bloodstream but causes no signs of infection in the ewe unless she is, or becomes, pregnant. During pregnancy, the organism enters the uterus and causes inflammation of the placenta and death of the fetus. If infection occurs before conception, the ewe will abort during midpregnancy. If infection occurs during early pregnancy, abortion will occur 60 to 90 days thereafter. If infection occurs during mid or late pregnancy, stillbirths and weak lambs at birth may result.

Clinical Signs

- Clinically characterized by abortion during the last months of pregnancy, still born, or pre mature births.
 - Abortions will occur without previous symptoms, some will develop persistent cough without breathlessness , or arthritis and keratoconjunctivitis (inflammation of the cornea and conjunctiva).
 - In some experimental infections small amounts of vaginal discharge was observed the day before abortion.
 - Inflammation of the endometrium and retained placenta are not standard, even if they are more frequent than in ewes.
 - After abortions they may recover quickly or present a brown colored discharge from the vagina.

Clinical Signs

- In natural infections with a high rate of abortions, 50% or less of goats that aborted recovered quickly whereas post abortive sickness in ewes is odd.
- In a newly infected flock the rate of abortion is severe, 30% up to 90% of the pregnancies may be aborted and milk production then decreases rapidly.
- The high rated abortions are observed for 2-3 years after which the disease takes a cyclic nature which is 10% of the females will abort every year for a couple of years until a new outbreak occurs then all yearlings will abort.
- Ewes that abort can become chronically infected but have no signs proving that the same can happen with goats.

Transmission of the Disease

- Infected animals excrete large amounts of Chlamydiae in the placenta and fetal fluids at the time of parturition and at the time of abortions.
- Goats may shed Chlamydia in vaginal fluids from two weeks prior to abortion to two weeks after the abortion.
- Smaller amounts can also be shed in urine, milk, and feces several days after the abortion
- Animals can pick up the disease by inhaling the particles through feed, water, or dust particles.
- If they are 100 days pregnant they are more susceptible to the disease than one at the end of gestation or barren.
- Infected mothers can pass the disease onto their young which causes it to stay in the flock or transmit it to others.

Diagnosis

- In order to be able to identify and diagnose the disease you have to be able to identify the symptoms.
- When it is suspected, placenta and fetuses should be packed in ice and marked with the proper animal identification number, then sent to lab for the official diagnosis.
- A veterinarian should come swab the vagina up to three days after the abortion and sent to the lab for isolation of the microorganism.
- You can also take serum samples from the doe which can be used for immunological tests.

Treatment

- Tetracycline's affect the replication of Chlamydia therefore can prevent the abortions from occurring.
- Giving 20 mg of oxytetracycline(intramuscular) during the pregnancy days 105-120 can prevent the abortion but will not prevent the infection from shedding with the placenta and fluids at time of parturition.
- In an infected flock abortion can be prevented by administering 80 mg/head/day of chlortetracycline, and if there is an outbreak 250 mg/head/day for three weeks has shown to be affective.

Prevention

- Tetracycline's help prevent abortions but not the transmitting of the disease.
- Can produce slight lameness that will persist 24-48 hours.
- 2 ml per animal subcutaneous under the tail or around the axilla.

