

SUMMARY

Causes of abortion in small ruminants in Lazio and Tuscany: improvement of knowledge and territorial diagnostic management

Abortions are one of the major health and economic problems in sheep and goat breeding. The impact is both economic, given the loss of lambs and the lack of lactation of mothers, both epidemiological because of the possible transmission between flocks and, in cases zoonotic pathogens, also to humans. In 2014, a project of the Section of Viterbo called "SOS abortion", has allowed to provide rapid responses, reducing the time to a maximum of 3 days, on the main causes of abortion in small ruminants, allowing also to collect epidemiological data that form the basis of the new project, with the following objectives:

GENERAL OBJECTIVES:

- Identification of the most common aboriginal agents in small ruminants.
- Knowledge and effectiveness of previous vaccinations against abortions
- Knowledge of the spread of abortions in the territory, of their economic weight and possible impact with human public health.
- Knowledge of the antibiotic resistance above all of the SAO.

SPECIFIC OBJECTIVES:

- Increased knowledge of farms with abortion problems in sheep and goats
- Increase in the relationship of trust with farmers following rapid responses and preparation of vaccines.
- Effectiveness of any treatment with antibiotics in case of abortions.

The first part of the project is based on the involvement of farmers and public and private veterinarians by the IZSLT to promote awareness of sheep and goat abortions.

The diagnostic protocol in all its components has been studied in particular: anamnesis, methods and times for the sending of pathological material, autopsies, cultural and biomolecular techniques, with sharing both within IZSLT, and among external operators. In the case of positivity for S.A.O. a stabulogen vaccine was set up and the resistance / susceptibility to the most widely used antibiotics in the field was also verified.

The main element of this project is to speed up the reports, favouring a quicker intervention by the breeder. This is the easiest way to improve the performance and health aspects of Lazio. Crop and molecular techniques (PCR-RT) were used for the analyzes.

The fields were as follows: (tab.1)

Coxiella burnetii investigated in 238 matrices with 104 positive, or 43.7% of the total;

Chlamydia abortus on n. 392 matrices with 200 positive, or 51.02% of the total;

Salmonella Abortus Ovis on 406 matrices with 64 positive, or 15.76% of the total;

Toxoplasma gondii on 437 matrices with 34 positive, or 7.78% of the total;

Neospora caninum on 438 matrices with 4 positive, or 0.91% of the total.

Brucella and Border disease, negative on all samples.

The most common etiologic man is *Chlamydia abortus* followed by *Coxiella burnetii*, SAO, *Toxoplasma gondii* and less than 1% *Neospora caninum*.

Data are important for future prophylaxis, vaccinations, antibiotic use and eradication plans.

Keywords: Abortion, sheep, Pcr.