

## **Abstract:**

Abortion in dairy herds and fattening sheep and goats, is causing huge economic losses. Several infectious and non-infectious factors are involved in this phenomena; Therefore this study was conducted to investigate the epidemiology of abortion caused by *Brucella*, *salmonella* and *coxiella* in Baluchi sheep in the northern of Sistan and Baluchestan province using molecular method (PCR).

During the autumn, a total of 78 aborted fetuses, were collected and sampling operations began from their abomasal contents and their spleens. Information of each fetus as independent variables, including keeping ewes area, age of fetus, history of ewes abortion, fetal sex, maternal age and number of lactation were recorded in a questionnaire. Data analysis were carried out using SPSS statistical software version 18 and a significance level of  $P < 0.05$  were considered for that. From a total of 78 aborted fetuses, in 35% of the cases the bacterial agents were isolated that infection with *Brucella melitensis*, *Coxiella burnetii* and *Salmonella abortusovis* in 15 (19.2%), 13 (16.6%) and 1 (1.3%) were observed, respectively. About *Brucella melitensis*, among the variables, keeping ewes area and fetal sex had a significant relationship with the occurrence of abortion. About *Coxiella burnetii*, none of the variables had a significant relationship with the occurrence of abortion. About *Salmonella abortusovis*, one sample extract from abomasal contents of a female fetus. Lack of appropriate preventive procedure can lead to widespread occurrence of epidemic brucellosis or Q fever in the human population and livestock so that is necessary to have a strategy plan to control, prevention and ultimately eradication of these infectious agents.

Key words: Abortion, Baluchi sheep, *Brucella melitensis*, *Coxiella burnetii*, *Salmonella abortusovis*, PCR.



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**Epidemiological study of abortion caused by *Brucella*, *Salmonella* and *Coxiella* in Baluchi sheep in the northern of Sistan and Baluchestan province using molecular method (PCR)**

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