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Anaplasma ovis genetic diversity detected by major surface protein 1a and its prevalence in small ruminants

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Highlights:

- The overall *A. ovis* prevalence was 18% (CI 14.4-22.1).
- There was no difference between *Anaplasma ovis* infection in sheep (20.3%, CI 15.4-26.0) and goats (15.0%, CI 10.1-21.1).
- A significant association between *A. ovis* infection and the presence of *Rhipicephalus bursa* and *Rhipicephalus turanicus* was observed
- Thirteen *A. ovis* genotypes were identified based on the structure of Msp1a tandem repeats. Fourteen previously undescribed tandem repeats with 33 to 43 amino acids were found.

ABSTRACT

Anaplasma ovis is a widely distributed tick-borne rickettsial pathogen of sheep, goats, and wild ruminants. The aims of this study were to assess the prevalence, associations of