



Isolation and characterization of pathogenic bacteria from *Rhipicephalus* spp. adult female hard tick

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Abstract

Ticks are blood-sucking arthropods established in basically all global regions of the world. Around the world, there are about 900 species of ticks. *Ixodid* or hard ticks are

made about 700 species, while 200 species are soft ticks. Ticks act as vectors of a wide range of disease agents, including viruses, bacteria, and protozoa. It is well documented that more than 100 000 diseased conditions in a human being in the world are associated with the tick-borne infection. This study intended to isolate some enterobacteriaceae (*Escherichia coli* and *Salmonella* spp) from live adult female *Rhipicephalus* spp hard tick. Sixty-seven ticks were collected from cattle and sheep during the period extended from November 2015 till March 2016 from Baghdad governorate. Totally, there were 15 (22.38%) samples revealed bacterial isolates out of 67. The number and percentage of *E. coli*, *Salmonella* spp and both *E. coli* and *Salmonella* spp isolates were 10 (14.92 %), 2 (2.98 %) and 3 (4.47 %) respectively. Moreover, the results showed significant ($P \leq 0.05$) difference between the isolated bacteria. In conclusion, this study approved the isolation of *Escherichia coli* and *Salmonella* spp from adult female *Rhipicephalus* spp hard tick. The author recommends taking a prevention precaution to control the distribution of ticks that have serious roles in the transmission and distribution of bacterial diseases in domestic animals.

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