

عنوان مقاله:

A Study on Latent Equine Salmonellosis Based on Phenotypic and Molecular Methods in Kurdistan Province of Iran

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خلاصه مقاله:

BACKGROUND: Equine salmonellosis is an important infection with a wide variety of consequences including development of acute salmonellosis in the cases of predisposing factors, nosocomial infections, public health risk, and environmental contaminations. **OBJECTIVES:** The aim of this study was to evaluate the fecal shedders of *Salmonella* spp. in the horses of Kurdistan province of Iran using phenotypic and molecular approach. **METHODS:** A total of 130 fresh feces were randomly collected from horses in four age groups and both sexes in four seasons from all over Kurdistan province. The samples were analyzed for the isolation of *Salmonella* spp. with culture and biochemical method. An *invA*-based polymerase chain reaction (PCR) method was also carried out for detection of *Salmonella* spp. in pooled fecal samples, simultaneously. The isolates were further serotyped and the antimicrobial profile of the isolates was determined using Kirby-Bauer method. **RESULTS:** The results showed 1.53% (n=2) and 7.69% (n=10) by bacteriological methods and PCR method, respectively. There was no significant relation between the frequencies of *Salmonella* shedders and age, sex and season ($p \geq 0.05$). The two isolates were recognized as *Salmonella* Typhimurium, showing 100% resistance against ampicillin, tetracycline, streptomycin, sulphamethoxazole, and chloramphenicol, and 50% resistance against gentamycin. **CONCLUSIONS:** Rapidity and accuracy of PCR versus phenotypic method makes it an appropriate procedure for the surveillance programs regarding *Salmonella* detection in feces. Approximately high prevalence of subclinical form in equine salmonellosis or *Salmonella* fecal carriers in the studied region is instigated to seriously apply strategies to manage and control the distribution of infection to susceptible hosts.

کلمات کلیدی:

Culture, Horse, Kurdistan, PCR, *Salmonella*

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