***Salmonella* spp. serovars isolated from healthy** **Leopard geckos (*Eublepharis macularius*) in Lisbon, Portugal**

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**Objectives:** This study aims to evaluate the frequency of *Salmonella* spp. in cloacal and oral cavity samples from healthy Leopard geckos, serovars identification, and phenotypic characterization.

**Material and Methods:** For 3 months cloacal and oral cavity samples were collected from healthy Leopard geckos.Presumptive *Salmonella* spp. colonies on IRIS Salmonella® agar were isolated and confirmed by PCR amplification of the *invA* gene. Serotyping was performed according to White-Kauffmann-Le Minor scheme. In all S*almonella* spp. isolates susceptibility to 16 antimicrobials was studied by the disk diffusion method and interpreted according to the EUCAST and CLSI criteria. Extended-spectrum beta-lactamase (ESBL) producing *Salmonella* spp. screening was performed in all isolates by the double-disk synergy test and the results were interpreted according to the EUCAST guidelines.

**Results:** Twenty of the 33 (60.6%) animals sampled tested positive for *Salmonella* spp. Regarding the cloacal and the oral cavity samples studied 85.0% (17/20) and 30% (6/20), respectively, were positive for *Salmonella* spp. In cloacal samples seven serovars were recovered: *Salmonella enterica salamae* ser. 16:m,t:- (n=6), *Salmonella enterica enterica* ser. *Fluntern* (n=5), *Salmonella enterica enterica* ser. *Typhimurium* (n=2), *Salmonella enterica enterica* ser. *Senftenberg/Dessau* (n=1), *Salmonella enterica salamae* ser. 30:l,z28:z6 (n=2), *Salmonella enterica enterica* ser. *Tennessee* (n=1). Regarding oral cavity the most frequent were *Salmonella enterica salamae* ser. *16:m,t*:- (n=3), followed by *Salmonella enterica enterica* ser. *Fluntern* (n=1), *Salmonella enterica enterica* ser. *Adelaide* (n=1) *Salmonella enterica enterica* ser. *Tennessee* (n=1). In this study MDR bacteria, such as ESBL/AmpC, and carbapenemase-producing *Salmonella* spp. were not detected. Most of the isolates were susceptible to all the antimicrobials studied.

**Conclusion:** In this study serovars with high zoonotic potential were identified, such *Tennessee* and *Typhimurium*. More research on the role of these exotic pets in the spread of this pathogens is needed, for a One Health approach to fight the dissemination of zoonotic *Salmonella*.

**Keywords:** Leopard geckos; Pets; *Salmonella* spp.; Antimicrobials; One-health.

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