HIGH RATES OF MULTIDRUG-RESISTANCE IN *Enterococcus* spp. ISOLATED FROM DOGS AND CATS IN LIMA - PERU

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INTRODUCTION

Enterococcus spp. are opportunistic pathogens which can rapidly acquire antimicrobial resistance causing septicemia, endocarditis or nosocomial infections in humans and animals.

OBJECTIVES

The purpose of this study was to identify and determine the antimicrobial susceptibility of enterococci isolated from dogs and cats in Lima - Peru during 2019-2020.

MATERIALS & METHODS

A total of 125 Gram-positive catalase negative cocci were isolated from urine, skin and ears, as well as from oral, abdominal, pharyngeal and abscess samples.

Isolates were identified by biochemical tests. Antimicrobial susceptibility was tested by the disk diffusion method. Inhibition zone diameters were interpreted according to the Clinical Laboratories Standards Institute (CLSI, 2018) breakpoints and, when breakpoints were unavailable for bacteria of animal origin, according to the human CLSI, 2021 breakpoints.

RESULTS

Figure 1: Frequency (%) of antimicrobial resistance in *Enterococcus* species isolated from dogs and cats

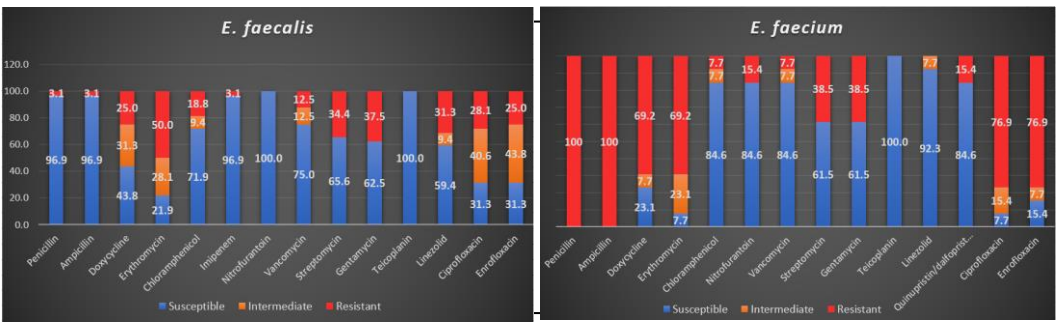

Table 1:Frequency of multidrug resistance

	MDR	XDR	PDR
E. faecalis	44.1% (15/34) [1]	-	-
E. faecium	81.8% (9/11) [2]	9.1% (1/11) [3]	-
Enterococcus spp.	37.5 % (3/8) [4]	-	-

Multidrug-resistant (MDR) [1,2] resistant from three to five antimicrobial categories, [4]resistant to three and five categories.
Extensively drug-resistant (XDR) [3] resistant to six antimicrobial categories.
Pandrug-resistant (PDR).

CONCLUSIONS

Most strains showed resistance to tetracyclines, macrolides and fluoroquinolones. In contrast, low resistance to vancomycin was observed.

A significant number of *Enterococcus* MDR were identified for the first time in companion animals in Lima-Peru.