



CARACTERIZATION OF ANTIBIOTIC RESISTANCE IN ENTEROBACTERIA CLOACAL OPENING ISOLATES FROM TURTLES OF THE “COATLCALLI” HERPETARIUM.

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Introduction. The Enterobacteriaceae family includes pathogen microorganisms that in recent days have increased the cases of infections caused by resistant bacteria. This strains shows multiresistance patterns and in many cases are extended-spectrum betalactamases (ESBL) producers (1,2). To survive in the antibiotic presence the bacteria have developed different mechanisms, the production of hydrolytic enzymes is one of more successful in gram negatives, and the more studied is the resistance by extended spectrum β -lactamases against the β -lactamic antibiotic (3, 4). In this study we determined the antibiotic susceptibility and ESBL production in enterobacteria cloacal opening isolates from turtles of the “Coatlicalli” herpetarium owned to Escuela de Biología, BUAP.

Methods. We collected the samples from 71 turtles by cloacal swabbing, later we sow in Levine agar with Cefotaxime (2 μ g/ml), the obtaining strains were undergoing to recommended biochemical tests, and after that their classification as enterobacteria we made the kirby-baüer test and the double disc diffusion (5).

Results. We obtain 13 strains (18.3%) of Enterobacteria, all strains were *Escherichia coli* multiresistant and 4 strains (30.76%) were ESBL producers.

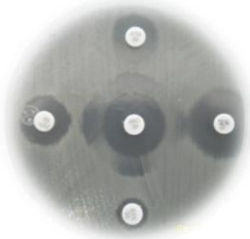


Fig.1 Positive phenotype of ESBL in *E. coli* with sensidiscs of β -lactamic antibiotics and in the middle one disc with β -lactamase inhibitor.

Table 1. Resistance profile to antibiotics and ESBL production.

CEPA	AMP	AMC	CAZ	CTX	FEP	ATM	CF	FOX	CRO	MEM	IPM	NA	CIP	GM	AN	NN	S	C	TMP	STX	TE
2*	R	S	S	R	I	R	R	S	R	S	S	R	R	R	S	I	R	R	R	R	R
60	R	I	R	S	S	R	R	S	S	R	S	S	S	S	S	S	R	S	S	S	R
77*	R	R	R	R	R	R	R	R	S	S	R	R	R	S	R	R	R	R	R	R	S
80	R	R	I	R	S	S	R	R	S	S	I	S	S	S	S	S	R	S	R	R	R
8T	R	R	I	R	S	S	R	R	S	S	I	S	S	S	S	S	R	S	R	R	R
190*	R	I	R	R	I	R	R	S	R	S	S	R	R	R	S	R	R	R	R	R	R
240G	R	R	I	R	S	S	R	R	S	S	S	S	S	I	S	S	I	R	R	R	R
24RG	R	R	I	R	S	S	R	R	S	S	S	R	I	S	S	S	R	R	R	R	R
480	R	R	R	S	I	R	R	P	P	I	S	S	P	P	P	R	R	R	R	P	
57N	R	R	R	R	S	S	R	I	R	S	S	R	R	R	S	R	R	S	R	R	R
59N	R	R	R	R	S	I	R	R	S	S	I	S	S	S	S	S	R	R	R	R	R
61N*	R	S	I	R	S	I	R	S	R	S	S	S	S	S	S	S	S	S	S	S	R
66M	R	R	I	R	S	S	R	R	S	S	R	R	S	S	R	R	R	R	R	R	R

*ESBL producers. AMP ampicillin, AMC clavulanic acid/amoxicillin, CAZ ceftazidime, CTX cefotaxime, FEP cefepime, ATM aztreonam, CF cephalothin, FOX cefoxitin, CRO ceftriaxone, MEM meropenem, IPM imipenem, NA nalidixic acid, CIP ciprofloxacin, GM gentamicin, AN amikacin, NN tobramycin, S streptomycin, C chloramphenicol, TMP trimethoprim, STX trimethoprim-sulfamethoxazole, TE tetracycline.

Conclusions. This occurrence of ESBL-producing Enterobacteriaceae suggests that in the turtles could act as a risk factor for his health, as a reservoir of resistance and contribute to the spread of these genes to other animals include human been.

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