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Abstracts from the

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The abstracts have been revised and evaluated for the cientific committee

241.

LEVEL OF ASSIMILABLE PHOSPHORUS IN SOIL AND ACTIVITY OF PHOSPHATE SOLUBILIZING MICROBES

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The importance of microorganisms in soil nutrient cycling and their role in plant nutrition has bean realized for a long time.
The objective of the present work was to determine the relationship between phosphate solubilizing microorganisms and the assimilable phosphorous level in different crops. The experience was carried out in plot tests, using marjoram, soybean and green-pea. Chemical analysis of soil (pH, OM, phosphorus available) and microbiological analysis (Colony Forming Units) were done.
Results showed that in marjoram the level of assimilable phosphorus was 76% higher than soybean and 27% higher than green- pea. It was observed a positive relationship between phosphate solubilizing microbes and phosphate available levels.
Work subsidized by CIUNT.

242.

CHARACTERIZATION OF THE ENZYMATIC RESISTANCE TO β-LACTAMICS IN ENTEROBACTERIA

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Detecting the resistance to CTG in severe infections-by enterobacteria guides to successful treatments. The main resistance mechanisms are the production of extended spectrum β-lactamases (BLEE), chromosomal inducible or derepressed β-lactamases Amp-C type or plasmidic Amp-C. The aim of this study was to investigate and characterize the mechanisms involved in the resistance to CTG in clinical isolations of enterobacteria, by phenotypic and genotypic methods. 64 isolations resistant to CTG were studied (*K. pneumoniae, E. coli, Enterobacter spp and Proteus spp*). Antimicrobial agents sensibility and phenotypic detection of Amp-C and BLEE enzymes was performed by diffusion and dilution methods. In cefotaxime resistant *E. coli* and *K. pneumoniae* strains a possible enzymatic resistance mechanism was detected by Masuda Bioassay. The genes *bla* CTX-M-2 and *bla* PER-2 were detected by PCR. Of 64 isolations, 8 strains were presumptively producers of derepressed Amp-C and 56 were BLEE producers (with prevalence of CTX-M-2). Accompanying resistance was observed. Masuda Bioassay was negative and accompanying resistance suggests it is due an impermeability phenomenon. Our results confirm that the resistance to CTG in our strains is mainly caused by enzymes coded in plasmids so that it merit to establish epidemic control measures and to emphasize wise use of β-lactamic agents available.

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***STREPTOCOCCUS AGALACTIAE* DETECTION IN PREGNANT WOMEN OF 35 TO 37 GESTATIONAL WEEKS THAT CONCURRED TO PREGNANT CONTROL IN LA MADRID HOSPITAL. MONTEROS**

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S. agalactiae is the main cause of newborn sepsis. The aim of this work was to determinated the prevalence of Streptococcus agalactiae (SBG), his antimicrobial sentitive and the asociation with risk factors in 26 pregnant women of 35 to 37 gestation weeks which have concurred to the Pregnant Control in General Hospital Lamadrid in Monteros. It was made a cross- sectional descriptive cut. The samples were obtaned from two sites, lower vagina and anorectum .The swabs were transported in Stuart medium and processed in Catedra de Bacteriologia. Fac Bqca,Qca y Fcia. UNT. The prevalence of SGB isolated was 15% $IC_{95\%}$= (13%, 26%), it was not found evidence that the isolation was asociated to the age of women studied (Exact Test of Fisher, p=0.56). All the strains were susceptive to penicillin and they were similar to those descrive in international and national publications, but there was not association between risk factors and positive cultures. It is not stadarizated then isolation of Streptococcus agalactiae in pregnant women in our city, we propose a screening in woman during pregnancy so antibiotic profilaxis could be inslated before the child is born.

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BACTERICIDAL EFFECT OF THE AQUEOUS EXTRACT OF POMEGRANATE SKIN ON *Shigella flexneri*

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Diarrheas caused by *Shigella* in Latin America are endemic with prevalence in children and with an increase in strains resistant to antimicrobial agents. The use of natural substances from medicinal plants could be an alternative treatment. **Objectives**: study the antimicrobial behavior of the aqueous extract (AE) of pomegranate skin (*Punica granatum* L) against *Shigella flexneri*.
Material and Methods: AE of pomegranate skin: 10 g in 250 ml water (4%). 1) Infusion for 10 min. 2) decoction for 1, 5, 10, 15, 20, 25 and 30 min.
Susceptibility studies: were carried out according to CLSI (Clinical and Laboratory Standards Institute) standards. a) Agar diffusion technique was applied with AE, determining the minimum inhibitory concentration (MIC) in liquid and solid medium, minimal bactericidal concentration (MBC) and bactericidal activity applying a death-time curve.
Results: AE produced 26-mm halos. MIC in liquid and solid medium was 0.5 mg/ml and MBC 1 mg/ml. The bacterial cell population diminished 3 log units after 6 h. Cell lysis was detected with transmission electron microscopy (TEM). These results encourage intensification of studies about the active agents of this plant with antimicrobial activity, which could be applied to alternative treatments.