109.

STRUCTURAL AND ULTRAESTRUCTURAL CHANGES PRODUCED IN RAT KINDEY BY CICLOSPORINE A CHRONIC TREATMENT

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Cyclosporine (CyA) is one of the most widely used immunosuppressants in organ transplants in many autoimmune illnesses and in atopic dermatitis treatments.

The sharp nephrotoxicity caused by CyA is characterized by a decrease in the renal plasmatic flow that causes a diminution in the glomerular filtration indexz, a phenomenon that can be reversed by suppression of the drug.

The object of this study was to determine the structural changes produced in kidney in treatments with CyA.

Adult Wistar rats weighing 200-260 g fed a standard diet were used. CyA was administered with the food at doses of 25 and 50 mg/kg/ day for four months.

Structural studies were carried out using the conventional histological technique. Slices were coloured with Hematoxilin –eosine and Mallory's trichromic stains were used for fibrosis evaluation. Sharp reversible nephrotoxicity appeared after a few weeks of treatment and compromised renal ducts, producing cytoplasmatic vacuolization, nuclear loss in tubular cells, cell desquamation, apparition of gigantic mitochondria and congestion of tubular capillaries that resulted in a decrease in glomerular filtration.

The effects produced by CyA increase with time. In prolonged treatments, CyA can present a potential risk of nephrotoxicity.

110.

IDENTIFICATION OF MOLECULAR GENETIC MARKERS FROM VICUÑA GENOME BY RAPD

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Vicuñas, wild South American Camelids extremely appreciated for the quality of their hair, are nowadays a protected species. The aim of this work was to identify new genetic markers in the vicuña genome for the analysis of the genetic variability in a vicuña population of the INTA Abra Pampa (Jujuy). The Random Amplified Polymorphic DNA technique (RAPD) was utilized. To generate amplification patterns, two sets of primers were assayed: 1) RAPD primers of 10 nucleotides (nt) and 2) 20-22 nt containing 60-70% of CG in the last 10 nt. Samples of DNA isolated from blood and bulb of the treaded off fibers corresponding at different individuals were analyzed. Polymorphic patterns of amplification were generated with the two variants of RAPD assayed. The primer A10 was selected as a possible polymorphic marker since differential amplifications products were detected in samples from different animals. In the second way, at least 12 bands of amplifications were selected and isolated to analyze possible polymorphisms in the vicuña genome sequence. Knowledge of the sequence of selected bands would enable the generation of Sequence Characterized Amplified Region (SCARs) markers in order to asses differences in the genetic composition of related individuals.

111.

EXPRESSION OF GENES RELATED TO EBAF OVIDUCTAL FUNCTION

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Ebaf, a member of the TGF- β family, is involved in the regulation of other members of this family. Besides, it is one of the factors that regulate the extracellular matrix (ECM) turnover during menstrual bleeding. The expression of Ebaf; CFC (receptor) and other proteins that participate in ECM remodeling (CTGF and MMP7) in the early pregnant and pseudopregnant rat oviduct were studied. By RT-PCR Ebaf, CFC and MMP7 showed a similar expression pattern. All genes showed higher expression levels at day 4 of pregnancy while no changes were observed during pseudopregnancy. Ebaf expression level was lower in the pseudopregnant than in the pregnant rat oviduct. CTGF showed no differences between pregnancy and pseudopregnancy. Western blot assays revealed that the mature form of Ebaf (26 kDa) was increased at day 4 of pregnancy with respect to the control. These results demonstrate that Ebaf and related genes such as CFC and MMP7 are up-regulated during pregnancy although their regulation seems to be unrelated to sexual hormones control. The embryo and the cytokines present in the oviductal fluid during early pregnancy might be involved. The presence of CFC and Ebaf mature protein in the oviduct and the fluid would indicate that Ebaf is active and that it could act in an autocrine way on the oviduct and in a paracrine way one on the embryo.

112.

OMEGA-3 FATTY ACIDS IN MUSCLE FROM Rana catesbeiana. SHAW, 1802, "BULLFROG"

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Introduction: According to international health organizations, human diet should be poor in salt, sugar, saturated (SFA) and hydrogenated (trans) fatty acids and rich in unsaturated fatty acids (UFA, particularly omega-3) and fiber. In Argentina, the standard diet is poor in omega-3, and Rana catesbeiana, Shaw, 1802, "Bullfrog" would be an alternative for the consumption of omega-3 since it consumes a balanced diet rich in UFAs. Aim: to evaluate the effect of FA composition of the lipid portion of the food consumed during the three stages of development of Rana catesbeiana on muscle FA composition in imagoes and adult frogs. Materials and Methods: We analysed FA composition in three balanced formulas. Muscle FA composition of imagoes and adults was analysed by gas chromatography. Results: Different balanced formula had different FA compositions. Muscle samples from imagoes and adult frogs had a high content of long chain omega-3 FA and low SFA contents. Conclusion: Decreased SFA content associated to increased omega-6 and -3 FA content in meat from imagoes and adult frogs according to the formula ingested would suggest that SFA would be used for energy and UFA would be stored in tissues. Keywords: Rana castesbeiana, saturated fatty acids, omega-3 fatty acids, omega-6 fatty acids.