

## SUMMARY OF THESIS\*

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**DAHER**, Elizabeth de Francesco – Avaliação da função renal a longo prazo em pacientes com insuficiência renal aguda associada à leptospirose. São Paulo, 1999. (Tese de Doutorado – Faculdade de Medicina da Universidade de São Paulo).

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### LONG-TERM EVALUATION OF RENAL FUNCTION IN PATIENTS WITH LEPTOSPIROSIS AND ACUTE RENAL FAILURE

Although acute renal failure (ARF) is frequent in severe leptospirosis (83%), renal function recovery has not been well studied. In order to verify how and when renal function recovery occurs, 35 patients with leptospirosis ARF and 18 health volunteers were prospectively studied. Jaundice, fever and myalgias were observed in 100% of the patients, low platelets in 94%, dehydration in 91%, arterial hypotension in 69%, respiratory failure in 40% and oliguria in 11%. Fifty one per cent of patients required dialysis. Penicillin was administered to 46%. Fever duration was  $3\pm 4$  days, time for plasmatic creatinine ( $\Delta TP_{cr}$ ) normalization was  $9\pm 6$  days, the duration of thrombocytopenia was  $5\pm 2$  days and the time for bilirubin ( $\Delta TB$ ) normalization or fall to 1/3 of its maximum level was  $8\pm 3$  days. During hospitalization the maximum ureia and creatinine levels were  $184\pm 102$  mg/dL and  $6\pm 3$  mg/dL, respectively. During the hospitalization, at discharge and in the 3<sup>rd</sup> and 6<sup>th</sup> months after it, glomerular filtration rate (GFR), sodium fractional excretion ( $FE_{Na}$ ), potassium fractional excretion ( $FE_K$ ) proteinuria ( $U_p V$ ), urinary concentration ( $U/P_{osm}$ ) and urinary pH ( $U_{pH}$ ) and sodium proximal reabsorption ( $PR_{Na}$ ) were evaluated. In hospitalization and at discharge, GFR was, respectively,  $33\pm 20$  and  $70\pm 22$  mL/min/1.73m<sup>2</sup>,  $FE_{Na}$  was  $7\pm 5$  and  $3\pm 2\%$ ,  $FE_K$  was  $63\pm 48$  and  $19\pm 10\%$  and  $U_p V$  was  $632\pm 490$  and  $235\pm 170$  mg/dL. At discharge,  $U_{pH}$  was  $6.0\pm 0.7$ ,  $U/P_{osm}$  was  $1.6\pm 0.4$  and  $PR$  was  $70\pm 9\%$ . In the 6<sup>th</sup> month, patients renal function was similar to that of health volunteers, but not  $U/P_{osm}$ :  $3.0\pm 0.5$  versus  $3.4\pm 0.3$  ( $p=0.017$ ). Based on the maximum plasma creatinine value, the patients were divided in severe group ( $P_{cr} > 5$ mg/dL, N=21) and less severe group ( $P_{cr} \leq 5$ mg/dL, N=14). In the severe group total bilirubin ( $p=0.017$ ) and CPK ( $p=0.045$ ), were higher and  $\Delta TP_{cr}$  ( $p=0.002$ ) and  $\Delta TB$  ( $p=0.001$ ) were longer then in less severe group. All oliguric patients and those requiring dialysis were in the severe group. In both groups in the 3<sup>rd</sup> month of follow-up,  $PR_{Na}$  was normal. Other all parameters became normal in the 6<sup>th</sup> month of follow-up but  $U/P_{osm}$  that remained lower than normal in severe group. The interaction severity/time showed that the renal function recovery followed the same pattern in both groups, except for urinary volume. In conclusion, renal function recovery after leptospirosis ARF is precocious and complete except for urinary concentration capacity in severe group.

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**ALVES**, Andréa Santos Rafael – Eficácia sorológica da vacina de hepatite B em lactentes. Ensaio clínico comparando a administração via intramuscular no glúteo ou no vasto lateral da coxa. São Paulo, 1999. (Dissertação de Mestrado - Faculdade de Medicina da Universidade de São Paulo).

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### SEROLOGICAL EFFICACY OF HEPATITIS B VACCINE IN INFANTS: A CLINICAL TRIAL COMPARING INTRAMUSCULAR ADMINISTRATION IN THE BUTTOCK VERSUS THE ANTEROLATERAL THIGH MUSCLE

A clinical trial comparing the serological efficacy of hepatitis B vaccine in infants when given in the buttock or the anterolateral thigh muscle was undertaken. Serological titers of anti-HbsAg were measured by an ELISA quantitative assay. No difference in the rate of seroconversion was observed between the two groups (134/135 X 122/123,  $p > 0.05$ ). However, the rate of low responders (anti-HbsAg antibodies  $< 100$  mIU/mL) was higher in the infants who received the hepatitis B vaccine in the buttock (12.2%) when compared with the anterolateral thigh muscle group (5.2%) (OR = 2.54). A multivariate analysis demonstrated that the site of the injection was the only factor significantly associated with a suboptimal response to hepatitis B vaccine. The clinical significance of the low response to hepatitis B immunization is not well understood.

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**CARMO**, Ricardo Andrade – Estudo da prevalência e genotipagem do vírus da hepatite C em população hemofílica, Minas Gerais, 1997. Belo Horizonte, 1999. (Dissertação de Mestrado – Faculdade de Medicina da Universidade Federal de Minas Gerais).

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A cross sectional study among hemophiliac patients was carried out in the main hematologic center in the State of Minas Gerais, Brazil, aiming at determining the HCV prevalence, HCV genotypes and factors associated with the plasmatic detection of HCV RNA.

Among 537 hemophiliacs registered at the center, from January 1985 through October 1997, 469 were eligible for the study (63 died and 5 were women). Seroprevalence of anti-HCV (EIA-3.0) was 44.6% (209/469). Serological, virological, clinical, and epidemiological assessments were completed for 162 positive patients. There was «confirmation» of anti-HCV serologic status using recombinant immunoblot assay (RIBA-3.0) in 156 patients (95.7%) while the remaining seven were indeterminate. The plasmatic HCV RNA was detected by nested-RT-PCR in 116 patients (71.6%). Using the RFLP analysis, the genotyping distribution included: 98 hemophiliacs with genotype 1 (84.5%); ten with genotype 3 (8.6%); three with genotype 4 (2.6%); and one with genotype 2 (0.9%). The HCV was not typeable in four cases. The descriptive analysis of the positive anti-HCV (EIA-3.0) population showed a median age of 24 years old, while most of the hemophiliacs had severe hemophilia (55.6%), type A (87.0%), without inhibitor (92.6%) and had their hemophilia diagnosed after 10 years old (73.5%). There were seven (4.3%) anti-HCV seroconversions between October 1992 and October 1997. In the same period, 40.1% of the positive-anti-HCV hemophiliacs had abnormal ALT levels, which were persistently elevated in 13.0%. About 53.7% of the positive-anti-HCV hemophiliac patients visited the hematologic center to receive hemotherapy at least 26 times/year during the previous two years. In addition, all patients had received blood or hemoderivated without viral inactivation in the past, specially crioprecipitate (92.0%). Other HCV transmission factors assessed were: intra-familial hepatitis C in 21.0% of the patients; at least two sexual partners/year in 7.4%; tatooing in 1.9%; injecting-drug use in 1.2%; and needle-stick injury in health-care worker in 0.6%. Serological markers for other infections transmitted by blood and blood products were: HBV in 67.9% of the patients; HIV-1/2 in 17.9%; HTLV-I/II in 4.5%; *T. pallidum* in 3.1%; and *T. cruzi* in 2.5%. Finally, the univariate analysis indicated that higher age ( $p=0.017$ ) and abnormal ALT level ( $p=0.010$ ) were associated with HCV viremia, while the presence of inhibitor ( $p=0.024$ ) and HBsAg ( $p=0.007$ ) were protector factors for detection of HCV RNA.