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The Risk Factors for and Effects of Visceral Leishmaniasis in Graft and Renal Transplant Recipients

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Abstract

INTRODUCTION: Renal transplantation is the most effective therapy in restoring quality of life and productivity of patients with Chronic Kidney Disease (CKD). In the Brazil has the largest public program renal-transplant in the world, using more than 70% of procedures kidney from a deceased donor. More selective immunosuppression has reduced episodes of rejection and increased graft survival and recipients of kidney. However the transplantation teams and organ recipients face a new challenge: emerging infections caused by opportunistic agents that can compromise this therapeutic success. The Visceral Leishmaniasis (VL) is a zoonosis caused by the protozoan of *Leishmania* gender. Occurs endemic in 5 continents and affect renal-transplant recipients, causes a systemic syndrome with atypical clinical features. Laboratory diagnosis, risk factors and treatment has not known. The VL in kidney transplant recipients in most cases, is unfavorable to death of the patient and graft loss. **OBJECTIVES**: The present study sought to identify the risk factors of visceral leishmaniasis (VL) in renal transplant recipients and analyze the impact of this disease on graft success and patient health. **MATERIAL AND METHODS**: This retrospective case-control study examined 120 renal transplant patients in an endemic area for Visceral Leishmaniasis. The treatment group included patients (n=20) who developed VL after transplantation, whereas the control group (n=100) was composed of renal transplant recipients without VL. This study investigated socioeconomic, demographic, and clinical variables as well as laboratory data. A bivariate analysis and a multiple logistic regression were executed to identify potential risk factors. **RESULTS**: The average time between transplant and *Leishmania* infection in the treatment group was 29.4 months. Most patients (85%) were cured; the others (15%) died. In 95% of cases, a myelogram was used to identify forms of *Leishmania*. The potential risk factors for VL identified in renal transplant recipients included bacterial infection after transplantation (odds ratio [OR]=3.00, 95% confidence interval [CI]=0.96-9.37), cytomegalovirus (CMV) infection after transplantation (OR=5.29, 95% CI=1.27-21.97), living with cats, (OR=5.74, 95% CI=1.15-28.76), and unpaved streets in the neighborhood (OR=2.14, 95% CI=0.71-6.43). Negative Rh factor protected against VL (OR=0.26, 95% CI=0.06-1.02). **CONCLUSION**: CMV infection, bacterial infection, or both after transplantation; living with cats; and residing in neighborhoods with unpaved streets increased the risk of VL in renal transplant recipients, whereas negative Rh factor was a protective factor.

Keywords: Renal transplant recipients; Risk factors; Visceral Leishmaniasis; Kidney transplantation.

Biography:

Graduated in medicine from Universidade Federal do Piauí (1992). Ph D in science (medicine-NEPHROLOGY) UNIFESP-EPM (2013). He is currently medical Nephrologist of the University hospital of the Federal University of Piauí. Associate Professor of Nephrology at the Universidade Federal do Piauí (UFPI). Specialist in MEDICAL CLINIC, NEPHROLOGY, EMERGENCY MEDICINE and INTENSIVE CARE. Has experience in the field of Medicine, with emphasis on CLINICAL NEPHROLOGY, RENAL TRANSPLANTATION, CLINICAL MEDICINE and INTENSIVE THERAPY, , working mainly on the following topics: Clinical Nephrology, renal Transplantation, intensive care and endemic infectious diseases common in tropical countries. Expert in Visceral Leishmaniasis in renal transplant recipients. Currently holding the post of Superintendent of the University Hospital of the Federal University of Piauí and coordinator of the Hospital's Renal Transplant Service Alliance Casamater. I have research on Visceral leishmaniasis in kidney transplant recipients published in high-impact magazine and international circulation. Extensive experience in the diagnosis and treatment of infectious diseases (viral, bacterial, fungal, Protozoan and other tropical infections in Kidney Transplant), such as herpes zoster, leprosy, tuberculosis, CMV and toxoplasmosis. I am a reviewer of the journal AMERICAN JOURNAL OF TRANSPLANTATION.