Comparison of renal effects of *Bothrops jararaca* venoms from southeastern and southern Brazilian regions

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**Introduction:** The acute renal failure is one of main complications in lethal cases of snakebites with *Bothrops*. A recently proteomic analysis showed that the *B. jararaca* venom from southeast (SEv) has more metalloproteinases, while from south (Sv) has a higher amount of venom PLA2.

**Methods:** We have studied the renal effects induced by the *Bothops jararaca* venom from the two populations from geographic isolated regions within the Brazilian Atlantic rainforest, southeastern (SEv) and a southern (Sv). Isolated kidneys from Wistar rats weighing 250 to 300 g (n=6) were perfused with Krebs-Henseleit solution containing 6% of bovine serum albumin previously dialyzed for 120 minutes. The effects of the SEv and Sv (10 µg/mL) were studied on glomerular filtration rate (GFR), urinary flow (UF), perfusion pressure (PP), renal vascular resistance (RVR) and percentage of sodium (%TNa+), potassium (%TK+) and chloride (%TCl-) tubular transport at 60, 90 and 120 minutes of experiment. All data were analyzed by unpaired t-test with level of significance of p<0.05. In the treated group, the addition of the substance occurred 30 minutes (internal control) after the start of each experiment.

**Results:** The SEv decreased PP and RVR at 60 minutes, increased UF at 90 and 120 minutes. Sv decreased GFR at 60, 90 and 120 minutes. It was observed that there was a decrease in the percent of tubular transport of %TNa+, %TK+ and %TCl- at 60, 90 and 120 minutes in the two pool venoms.

**Discussion & Conclusion:** Both the venoms caused significant and different alterations in the renal parameters and perhaps associated with differences in the protein content of the poison.

Hematologic complications after kidney transplantation: Relationship to use of immunosuppressive drugs

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Kidney transplantation is the best treatment for patients with chronic renal failure. It is a procedure that brings many benefits, but the later use of immunosuppressants is associated with the occurrence of adverse drug reactions. Immunosuppressive therapy tends to be specific in each transplant center and consists of a combination of various agents, including corticosteroids, calcineurin inhibitors, anti-metabolites and mTOR inhibitors. Patients transplanted due to immunosuppression, have higher incidence of viral, bacterial and fungal infections such as cytomegalovirus, pneumocystosis and candidiasis; it is necessary to include prophylaxis antimicrobial therapy. Immunosuppressive drugs and prophylactic antibiotics are discussed in recent studies about the risk of hematological disorders and bone marrow, report pancytopenia, isolated manifestations of anemia, leucopenia and thrombocytopenia. More specific hematological disorders such as lymphocytic syndrome, erythrocytosis, thrombotic microangiopathy, lympho-proliferative disorder and hemophagocytic syndrome, are less frequent, but have been described. Hematologic changes in renal transplant patients can cause complications which are life-threatening, so they should be carefully monitored and treated by the health team. The aim of this study was to report the main after renal transplantation hematologic complications described in the literature and its association with the use of immunosuppressive agents as well as the strategies and protocols for the clinical management of these changes.