



# ACUTE KIDNEY INJURY AND OTHER COMPLICATIONS OF LOXOSCELISM – A CROSS-SECTIONAL STUDY IN NORTHEAST BRAZIL



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## INTRODUCTION

Loxoscelism is described as the most severe form of spider bite, which is very frequent in Brazil. There are two main forms: cutaneous, characterized by local pain, and cutaneous-visceral, which causes systemic signs of hemolysis, disseminated intravascular coagulation and acute kidney injury (AKI).

## OBJECTIVE

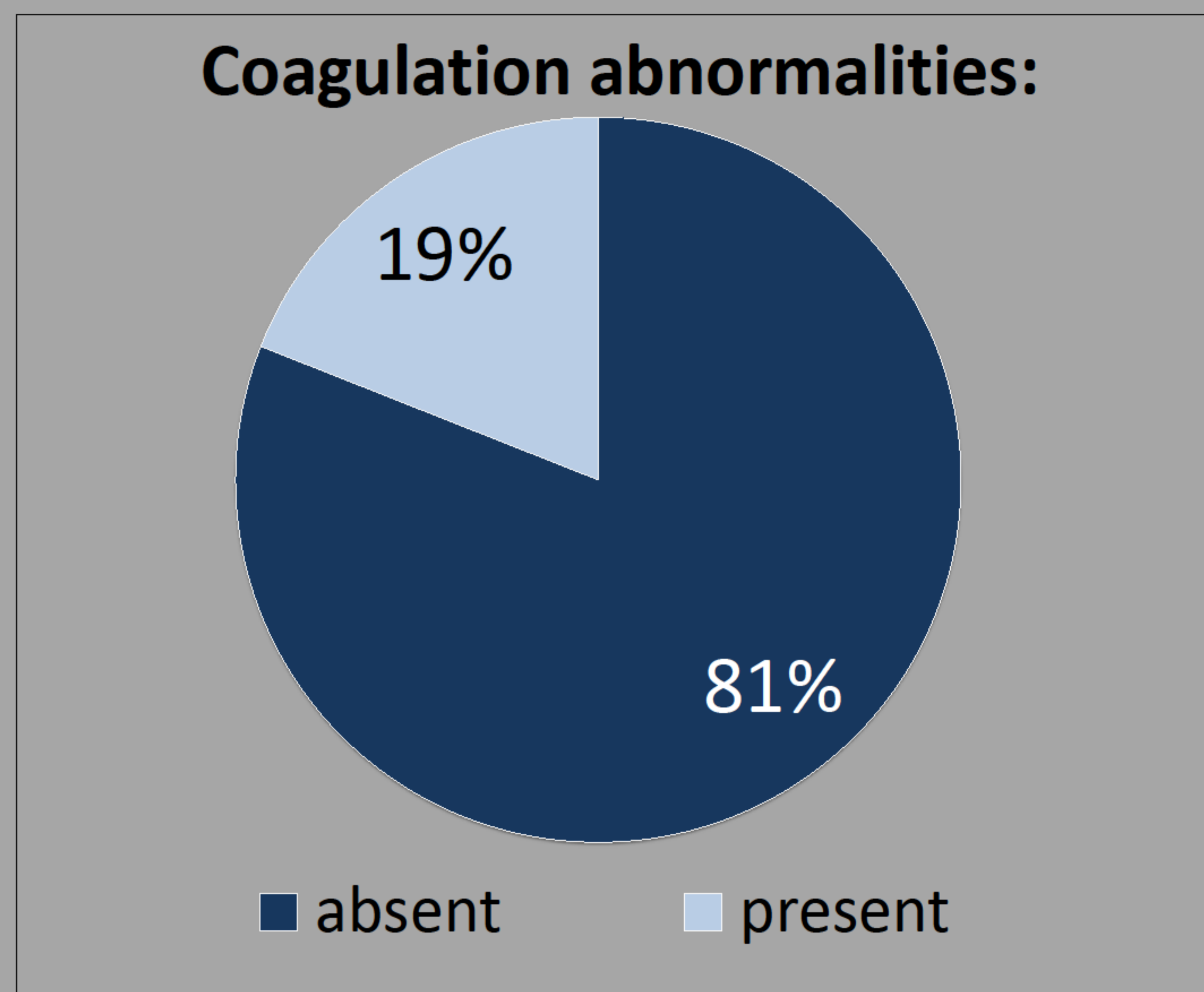
To describe the occurrence of AKI and other complications among victims of spider bites.

## MATERIALS AND METHODS

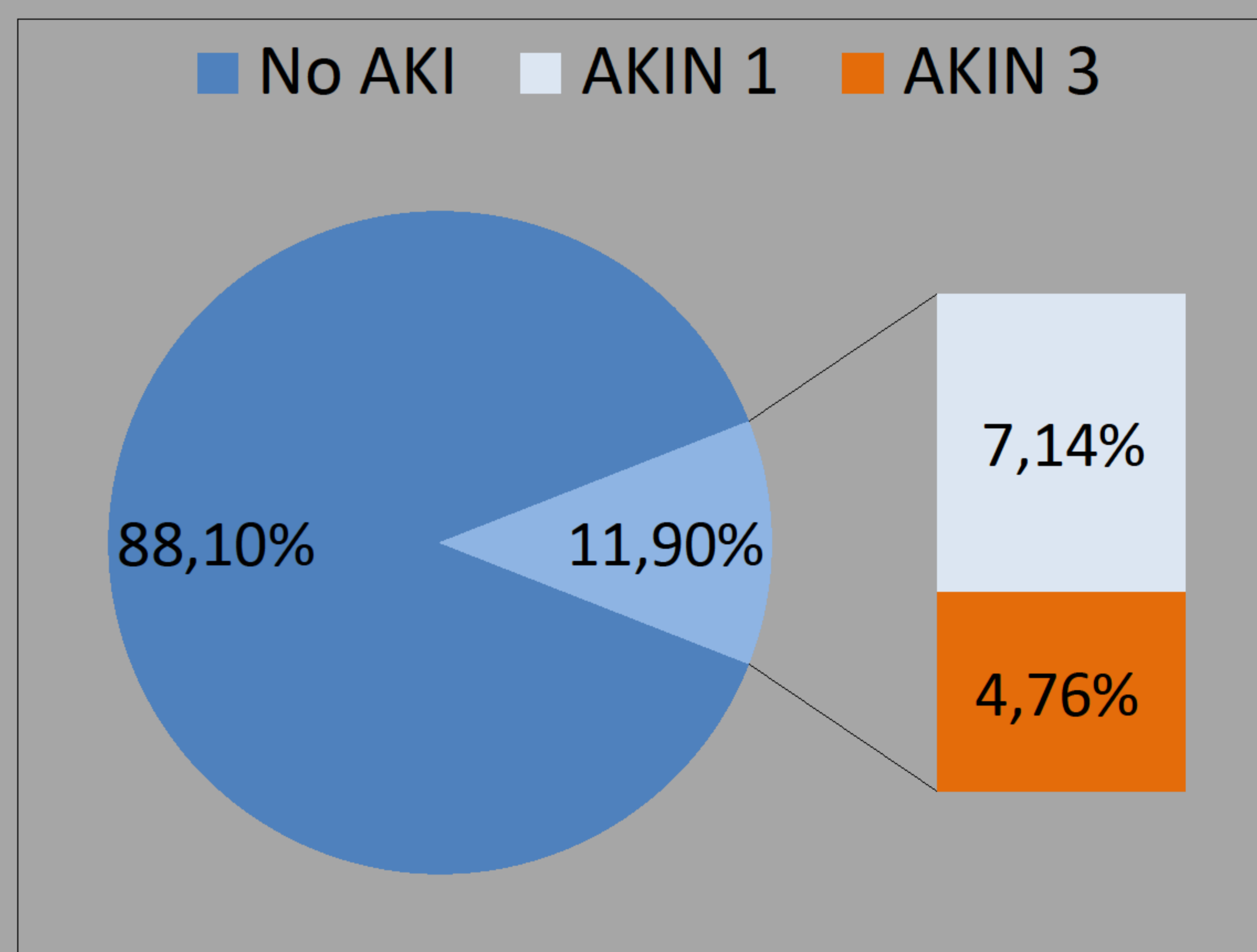
This is a cross-sectional study including all patients admitted to the Toxicological Assistance Center at Instituto Dr. José Frota, Fortaleza city, Brazil, victims of spider bites in the period from January 2010 to June 2015. Clinical and laboratory characteristics recorded at admission and during hospital stay (when hospitalization was required) were reviewed. Statistical analysis was performed with SPSS program v. 20, and p value < 0.05 was considered significant.

## RESULTS

A total of 42 cases were recorded. Patients' mean age was 32.7 years, and there was a predominance of females (64.3%). The majority of cases occurred in urban areas (81%), 38.1% in the city of Fortaleza. The most injured body sites were the lower limbs (40.4%). The characteristic necrotic skin lesion was observed in 95.2% of cases. Mean time between the accident and medical care was 125 hours. AKI was observed in 5 patients (11.9%), and they were classified as AKIN 1 (3 cases) and AKIN 3 (2 cases, 1 requiring dialysis) as shown in graphic 2; 19% had coagulation abnormalities, as shown in graphic 1. Mean levels of serum urea and creatinine were, respectively, 38.5mg/dl and 1mg/dl, and mean values of prothrombin time and partial thromboplastin time activation were, respectively, 17s and 28s. Around 54% of patients had secondary infectious complications, and antibiotics were given in 61.9% of cases.



Graphic 1 - Percentage of patients who developed coagulation abnormalities



Graphic 2 - Distribution of patients per AKI classification, according to AKIN classification.

## CONCLUSION

Loxoscelism is frequent in urban areas in our region, and causes necrotic cutaneous lesions in almost all cases, and secondary infection. The main other complications are coagulation abnormalities and kidney injury. Further research is required to determine if earlier medical care would decrease secondary complications.



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