LITHOGENIC RISK INDEXES IN LITHIASIC PATIENTS AND THEIR POST TREATMENT PROGRESS

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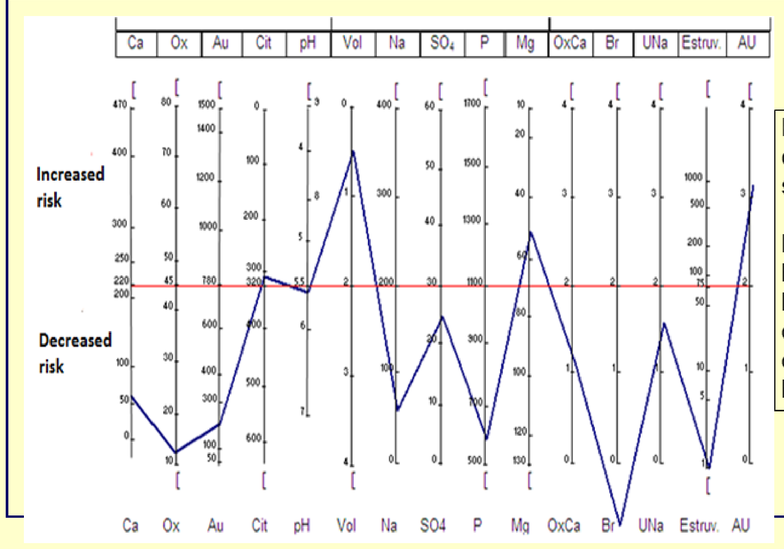
OBJECTIVES

Determine the lithogenic risk indexes including metabolic factors and urine saturation in lithiasic patients that attend to the Social Previtional Institute (IPS) hospitals and their post treatment variations

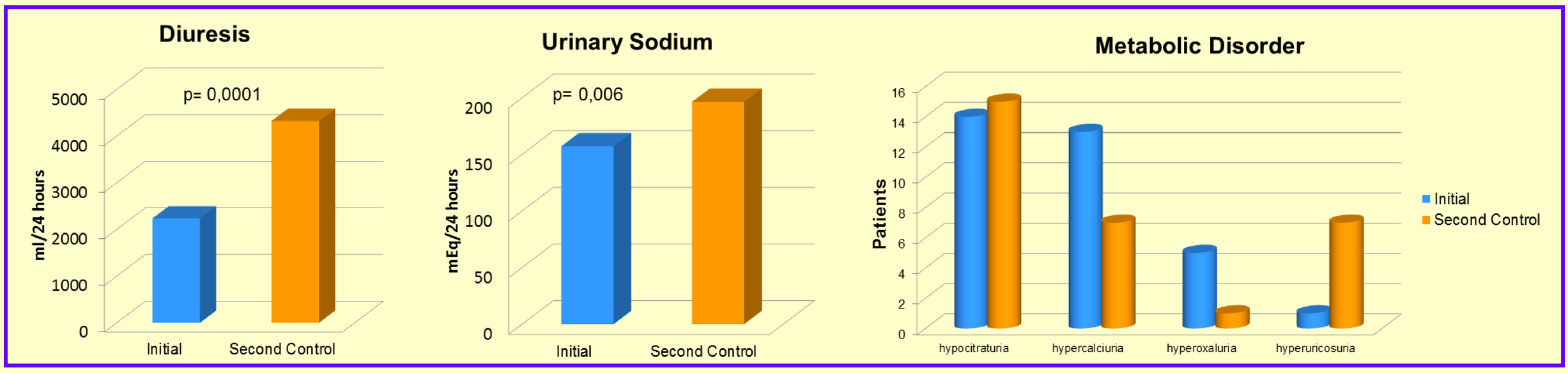


Patient with calcium oxalate stone.

Risk Factors hypocitraturia, low urine pH, decreased diuresis and hipomagnesiuria.

METHODS

The temporal series experimental design work, included 29 adult lithiasic patients of both sex that attended the urology and nephrology services of the IPS hospitals during 2012 that were not receiving treatment for their renal lithiasis and agreed to participate willingly. A metabolic screening was performed to determine the urinary indexes of the patients using EQUIL software, besides that, a morphologic study of the kidney stones was available. A customized treatment according to their base results was prescribed and a six month follow up was done, after this period of time each patient was re study with the same initial therapy scheme. The protocol was approved by both the scientific and ethics committees of the IICS. The data gathered was analyzed with the SPSS version11.5 software, employing the e Kolmogorov test to verify the regular distribution of data, the Wilcoxon test and the paired samples method to compare the pre and post treatment results of these patients.



RESULTS

Results: 18 kidney stones were analyzed of which 77,7% were of Calcium oxalate and 22,3% of uric acid. In the basal evaluation 65,5% presented hypocitraturia, 44,8% hypercalciuria, 13,8% hyperoxaluria and 41,4% had a diuresis below 2L/day. The saturation indexes indicated calcium oxalate crystallization risk, sodium urate, hydroxyapatite and uric acid of 1, 2, 12 y 12 patients accordingly. After the treatment and increase in the mean values of the diuresis, magnesiuria, citraturia and urinary pH, as well as a decreased calciuria and the number of patients with urinary saturation for calcium oxalate and uric acid. The statistical analysis of paired samples before and after the treatment were studied showing a remarkable variation of the numbers in the diuresis (p 0,0001), urinary pH (p 0,83) and urinary saturation for uric acid (p 0,001), sodium urate (p 0,017) and potassium urate (0,012).

CONCLUSIONS

The lithogenic risk factors identification of each patient allowed taking more specific therapeutical decisions. The use of software tools to create a risk for crystallization calculus is an important introduction in Paraguay.
Text

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