

# Electroacupuncture (EA) and Moxibustion (MO) attenuate inflammation and prevent the progression of renal disease on already established chronic kidney disease

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## INTRODUCTION

Chronic kidney disease (CKD) is now considered a serious worldwide public health issue with increasing prevalence in the last few years and associated high morbidity and mortality. In this regard, inflammation emerges as an independent predictor of mortality in CKD patients. Traditional Chinese Medicine (TCM) has been increasingly recognized as an effective therapeutic in several fields of medicine. Among its therapeutic strategies are electroacupuncture (EA) and moxibustion (MO).

## AIMS

Investigate the effects of EA and MO on inflammatory factors in an experimental model of hypertensive and progressive renal disease already established.

## EXPERIMENTAL PROTOCOLS

Male wistar rats were submitted to 5/6<sup>th</sup> nephrectomy (5/6 nx) and divided in three groups:

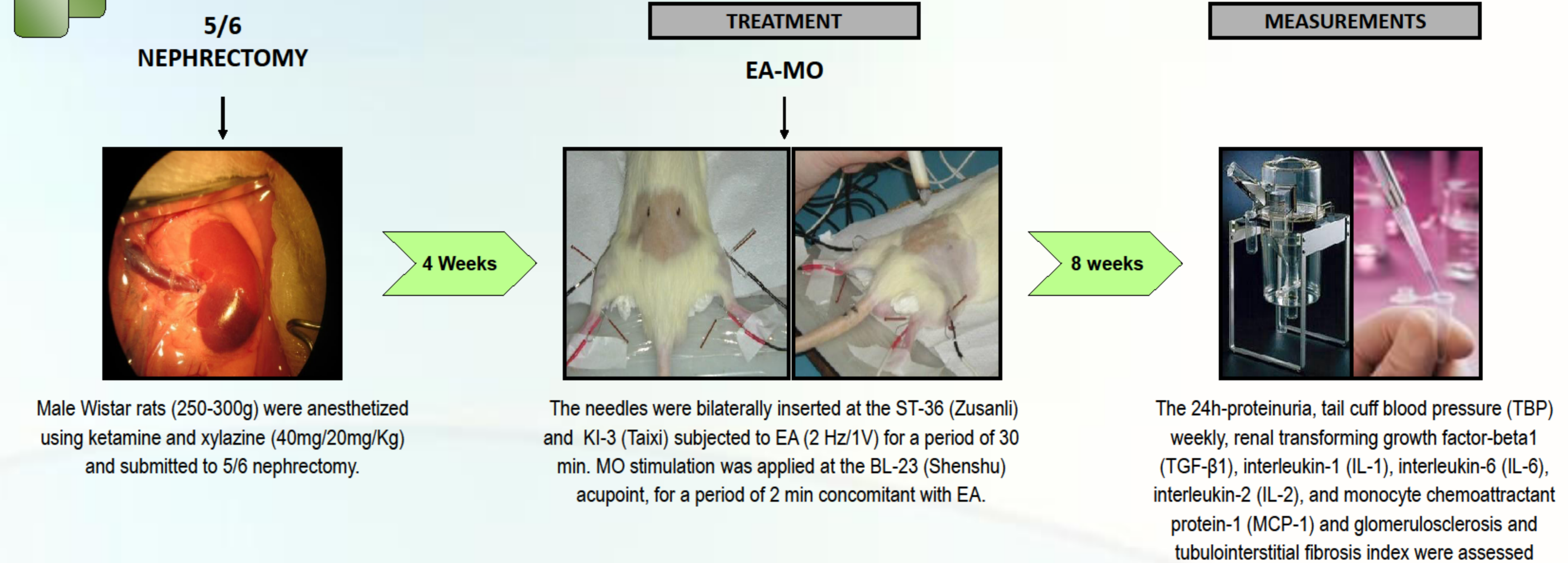
- NX: only 5/6 nx.
- NX-Sham: twice weekly 30 min EA-MO session in sham-points;
- NX-Acup: twice weekly 30 min EA-MO session in ST-36 (Zusanli), KI-3 (Taixi). MO stimulation was applied at the BL-23 (Shenshu) acupoint, for a period of 2 min concomitant with EA.

The entire treatment consisted of 16 sessions distributed along eight weeks.

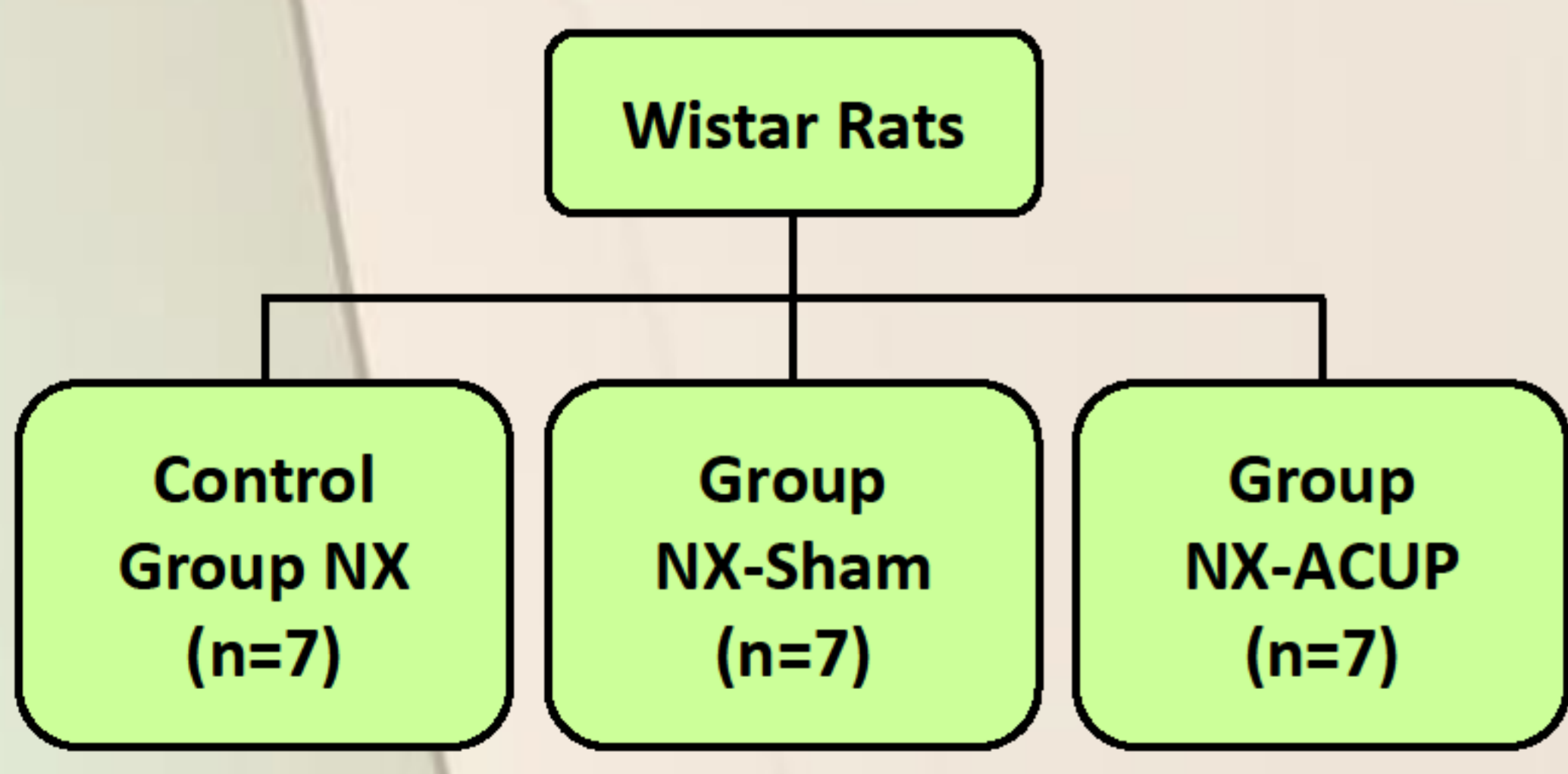
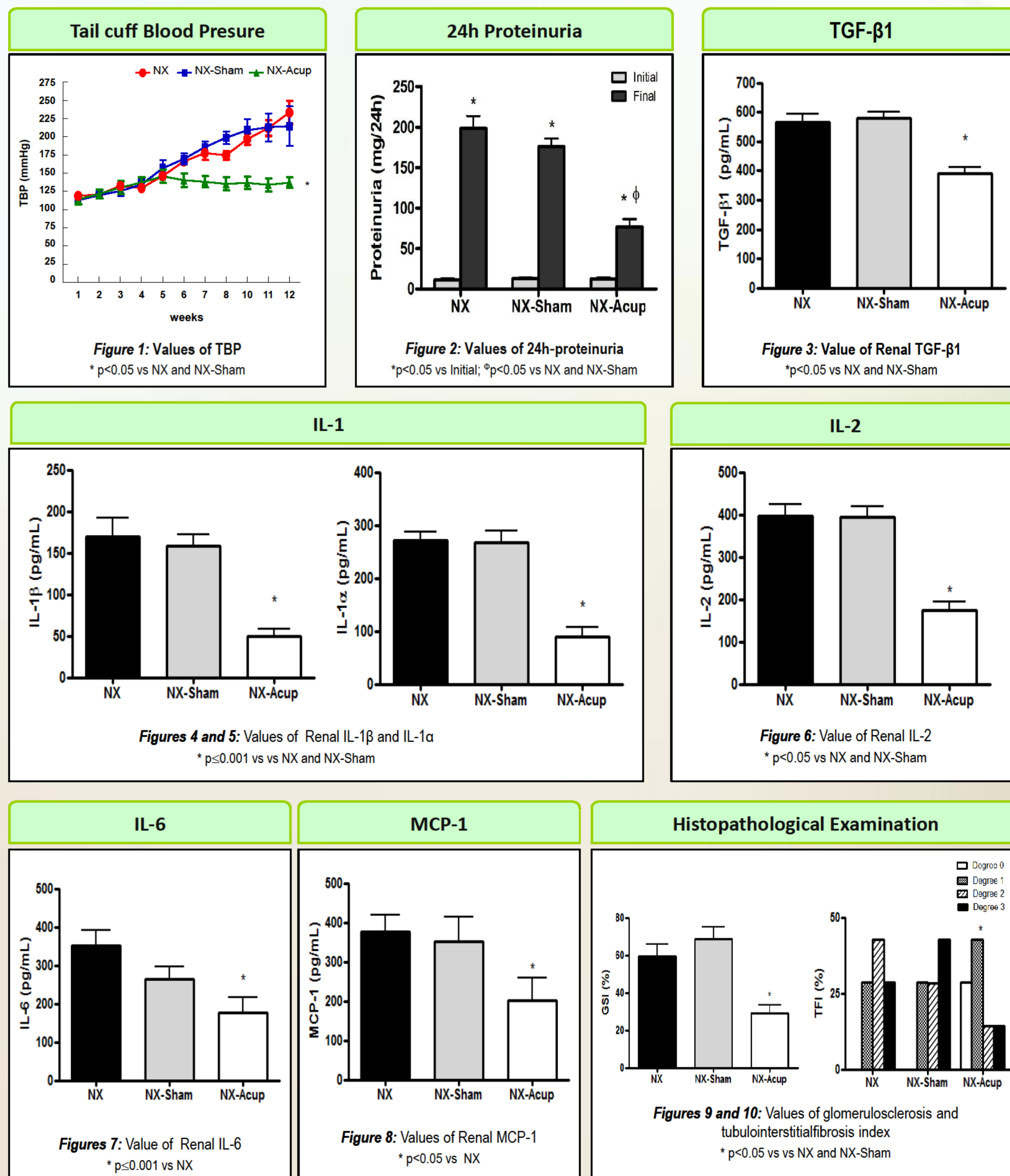
The 24h-proteinuria, tail cuff blood pressure (TBP) weekly, renal transforming growth factor-beta1 (TGF-β1), interleukin-1 (IL-1β and IL-1α), interleukin-6 (IL-6), interleukin-2 (IL-2), and monocyte chemoattractant protein-1 (MCP-1) and glomerulosclerosis and tubulointerstitial fibrosis index were assessed.

The statistical significance of the results was evaluated by ANOVA followed by Tukey test. Values were expressed as mean ± S.D.

## METHODS



## RESULTS



## CONCLUSIONS

EA and Mo modulated immune and inflammatory responses in CKD, leading to lower production of intrarenal TGF-β1, IL-1, IL-6, IL-2, and MCP-1. The acupuncture-treated group presented significant improvement in all measured functional parameters and histopathologic parameters. Those results suggest that EA and MO have beneficial effects even on a kidney chronic injury already established.

Supported by CNPq and FAPESP

