

## Clinical Observation of 29 Cases of Tonifying Kidney and Spleen, Detoxification of Throat Traditional Chinese Medicine in the Treatment of IgA Nephropathy

Di ZOU<sup>1,a</sup>, Hong-an WANG<sup>2</sup>, Yin-ping WANG<sup>3</sup> and Shou-lin ZHANG<sup>4b\*</sup>

<sup>1,2,3,4</sup>Department of Nephrology, the First Affiliated Hospital to Changchun University of Chinese Medicine, Changchun, Jilin province, China, 130021.

<sup>a</sup>aggiezou@163.com, <sup>b</sup>shoulin-z@163.com

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**Abstract.** Purpose: To observe the clinical effect of tonifying kidney and spleen, detoxification of throat traditional Chinese medicine in the treatment of IgA nephropathy. Methods: 60 patients with IgA nephropathy were randomly divided into treatment group and control group with 30 cases in each. The treatment group gave tonifying kidney and spleen, detoxification of throat of Chinese herbal medicine, daily 1 agent. The control group was treated with Lotensin 10 mg, once daily orally. The course of treatment in the two groups are three months. Compared with the two groups before and after treatment, TCM syndrome score, 24 h urinary protein, urinary red blood cell count and adverse reaction. Results: In the treatment group, 1 cases loss. In the control group, 3 cases loss. Treatment group of TCM syndrome lumbar pain, sore throat, fatigue, edema, low sodium, xerostomia score decreased after treatment ( $P < 0.05$ ). Compared with before and after treatment, the treatment group with 24h urinary protein and urinary red blood cell count were significantly reduced ( $P < 0.01$ ). Control group after only 24h urinary protein decreased significantly ( $P < 0.05$ ), the difference in urinary red blood cell count no statistical significance ( $P > 0.05$ ). The two groups after treatment, the treatment group 24h urine protein and urine red blood cell count were significantly lower than the control group ( $P < 0.05$  or  $P < 0.01$ ). Two groups of patients before and after treatment of blood, routine, liver, kidney function, ECG, no abnormal changes. Conclusion: Tonifying kidney and spleen, detoxification of throat Chinese medicine can effectively improve patients with IgA nephropathy clinical symptoms, reduce 24h proteinuria and urinary red blood cell count, and is safe and effective.

### Introduction

IgA nephropathy is referred to the IgA or IgA immune globulin in glomerular mesangial and capillary loop deposition caused by a series of clinical and pathological changes<sup>[1]</sup>. Its clinical manifestations are gross or microscopic hematuria, which may be associated with different levels of proteinuria, hypertension and impaired renal function. Studies have shown that IgA nephropathy usually due to infection or exacerbation of upper respiratory tract induced, which accounted for 80.1% of tonsillitis<sup>[2]</sup>. We believe that the two deficiency of spleen and kidney is the basis of the pathogenesis of IgA nephropathy. The main cause of treatment to cure the pharynx, use tonifying kidney and spleen, detoxification of throat decoction treatment<sup>[3]</sup>. We observed the use of tonifying kidney and spleen, detoxification of throat method in the treatment of 29 cases of IgA nephropathy are summarized as follows.

## **Clinical Data**

### **Diagnosis and Dialectical Criteria**

Western medicine diagnosis standard is according to <Nephrology>[4] “diagnostic criteria of IgA nephropathy diseases”. According to the standards of TCM “the guiding principle of clinical research on new drugs (Trial) ”[5] and “Bian stone set (third Series) ” [6] syndrome of spleen and kidney two empty, poison and blood stasis syndrome of pharynx. The main symptoms: 1) lumbar pain; 2) sore throat, throat swelling, including nuclear red, or even yellow white pus rot; 3) edema; 4) anorexia and abdominal swelling; 5) fatigue. Secondary symptoms: 1) stool; 2) frequency urination; 3) dry mouth. Pale red tongue, scalloped, thin white fur, pulse weak. The main symptoms include 3 main symptoms, or 1), 2) main symptoms added 2 items of secondary symptoms, tongue and pulse diagnosis can be essential.

### **Inclusion Criteria**

IgA nephropathy with western medicine and TCM diagnostic criteria standard; 24h urine protein < 1g; 18 to 65 years of age; informed consent.

### **Exclusion Criteria**

A variety of secondary glomerulonephritis; with severe heart, lung and liver dysfunction; acute and chronic infectious diseases (including hepatitis, tuberculosis); acute nephritic syndrome, acute and chronic renal failure; period of pregnancy or breast-feeding women; a history of allergies.

### **General Information**

From April 2012 to December 2014 in the Affiliated Hospital of Changchun University of Traditional Chinese Medicine Department of 60 nephropathy outpatient and hospitalized patients with IgA nephropathy were randomly divided into treatment group and control group, each of 30 cases. In the treatment group, 14 cases male, 16 female; the course of disease was 1 months to 4 years, the average ( $7.34 \pm 14.44$ ) months; age ranged from 18 to 62 years old, the average ( $35.58 \pm 10.70$ ) years old. In the control group, male 11 cases, female 19 cases; the duration ranged from 1 weeks to 3 years, the average ( $6.78 \pm 10.83$ ) months; age ranged from 19 to 61 years old, the average ( $36.13 \pm 10.45$ ) years old. No statistical significance between the two groups of patients with general information difference ( $P > 0.05$ ) comparable.

## **The Method**

### **Treatment Method**

The treatment group was given tonifying kidney and spleen, detoxification of throat of Chinese herbal medicine orally. Medicine composition: Rehmannia 20g, Astragalus 20g, Dang shen 15g, Jin qiao mai 30g, Zi jin pi 30g, Wood butterfly 15g, turmeric 10g, Poria 50g, cogongrass rhizome 100g, Pu huang 15g, Calvatia 15g, Jin ying zi 20g. One dose per day, by the manufacturing laboratory of the Affiliated Hospital of Changchun University of Traditional Chinese Medicine unified decoction, orally two times a day, a course of 3 months. The control group was treated with Benazepril Hydrochloride Tablets (Lotensin, per 10mg, Beijing Novartis Pharma Ltd, Zhunzi 1050423 H0) 10mg, orally 1 times a day; if there is hypertension, combined with the use of Levamlodipine Besylate Tablets (Shi Huida, 2.5mg per tablet, Jilin Tianfeng Pharmaceutical Co. Ltd, Zhunzi H19991083) 2.5mg, orally 1 times a day a course of treatment 3 months.

## Observation Index and Method

Observation of the two groups before and after treatment in patients with TCM syndrome integral [5], 24 h urine protein, urine red blood cell count, and blood routine, urine routine and hepatorenal function change, ECG monitoring.

## Statistical Methods

Using SPSS 19 statistical software, measurement data was described with ( $\bar{x} \pm s$ ), paired-samples t-test was used.  $P < 0.05$  differences have statistical significance.

## Results

Treatment group 1 case lost because He cannot tolerate the decoction of Chinese medicine taste; control group 3 cases lost, 1 case intolerant hypotension after Lotensin oral, and 2 cases intolerant dry cough after Lotensin oral.

## Comparison of TCM Syndromes before and after Treatment in Two Groups of Patients

Table 1 showed the treatment group of lumbar pain, sore throat, fatigue, edema, low sodium, dry mouth and integral significantly decreased compared with those before treatment ( $P < 0.05$ ); before and after treatment control group the integral of TCM syndrome had no significant changes ( $P > 0.05$ ); comparison of the two groups after treatment showed the differences of scores were statistically significant ( $P < 0.05$ ). The treatment group was lower than that in control group.

Notes: compare with before treatment of treatment group,  $^*P < 0.05$ ; compare with after treatment of control group,  $^\Delta P < 0.05$ ;

Table 1: Comparison of TCM syndromes before and after treatment in two groups ( $\bar{x} \pm S$ )

treame		N	Lumbar pain	Sore throat	Fatigue	Edema	Less satisfied	Dry mouth
group	nt							
treatm ent group	Before	29	4.07± 1.56	3.27± 1.03	3.47± 1.46	3.37± 1.16	1.58± 0.61	1.74± 0.71
	After	29	1.67± 1.0 $^{*\Delta}$	1.20± 0.65 $^{*\Delta}$	1.40± 0.97 $^{*\Delta}$	1.78± 0.98 $^{*\Delta}$	0.96± 0.37 $^{*\Delta}$	0.93± 0.46 $^{*\Delta}$
contro l group	Before	27	3.87± 1.51	3.47± 1.37	3.33± 1.44	3.31± 1.14	1.65± 0.68	1.72± 0.62
	After	27	3.07± 1.44	3.00± 1.26	2.87± 1.28	2.72± 1.08	1.58± 0.70	1.57± 0.51

## Comparison of 24h Urine Protein and Red Blood Cell Count between Two Groups before and after Treatment

Table 2 showed that after treatment 24h urinary protein and urinary red blood cell count of the treatment group were significantly reduced ( $P < 0.01$ ); control group after treatment only 24 h urinary protein decreased significantly ( $P < 0.05$ ), the difference in urinary red blood cell count has no statistical significance ( $P > 0.05$ ). Comparison of the two groups after treatment showed 24h urine protein and urine red blood cell count of the treatment group were significantly lower than the control group ( $P < 0.05$  or  $P < 0.01$ ).

Table 2. Comparison of 24h urine protein and red blood cell count before and after treatment in two groups of patients with IgAN

group	time	number	24 h urinary protein quantitation	Urine red blood cell count
treatment group	Before treatment	29	0.98± 0.32	14.37± 5.68
	After treatment	29	0.36± 0.16 <sup>**△</sup>	4.78± 1.26 <sup>**△△</sup>
control group	Before treatment	27	0.89± 0.33	13.37± 4.78
	After treatment	27	0.62± 0.21*	11.52± 3.12

Notes:compare with before treatment of treatment group, <sup>\*\*</sup> $P<0.01$ , compare with before treatment of control group  $P<0.05$ ; compare with after treatment of control group, <sup>△</sup> $P<0.05$ , <sup>△△</sup> $P<0.01$ .

## Security Detection

Two groups of patients before and after treatment conducted the blood routine, stool routine,liver function, kidney function, electrocardiogram monitoring, and no abnormal change. After oral Lotensin of the control group, 1 cases of intolerance to hypotension, 2 cases of cough.

## Conclusion

In traditional Chinese medicine, IgA nephropathy belongs to “hematuria” “edema” “consumptivedisease” category.In kidney disease, involving the lung and spleen. Pei-qing Zhang believes that this empty sign is the main pathogenesis of the disease [7]; Zong-li Zhang think IgA nephropathy onset of polygenetic feeling caused by wind heat evil or damp heat[8]. Chinese medicine master Jixue Ren have unique insights for diagnosis and treatment of this disease.Application of laryngeal kidney related theories system describes the diagnosis and treatment of the disease, which believes that the toxin stagnation throat is causative factors of the pathogenesis of IgA nephropathy[9]. “lingshu” said “the kidney meridian of foot Shao yin,the straight from the renal tubular liver and diaphragm, into the lungs, through the throat, with the tongue.” Visible throat is kidney lung collaterals, for access to the evils of the portal and toxin from the nose and mouth, throat, forming milk moth, from blood invasion in the kidney, Fuxie formation, long and to poison, cause the disease, persistent unhealed.

Modern research confirms that the IgA nephropathy and tonsillitis patients whose IgA content in tonsillar tissue increased.The tonsils of IgA and IgA nephropathy mesangial deposition of IgA were J chain positive poly type IgA[10]. Hong-dong Huang [11]found that accompanied by tonsil infection of IgA nephropathy patients whose tonsillar CD4 +, CD25 + cells reduced and J chain IgA secretion increase is main factor leading to IgA nephropathy, indicating that the pharyngeal tonsil infection is IgA nephropathy predisposing factors.And the imbalance of the innate immune system is the basis of IgA nephropathy.

The research results showed that the traditional Chinese medicine of tonifying kidney and spleen, detoxification of throat not only can improve patients clinical symptoms, but also reduce the 24h proteinuria and urinary red blood cell count. Analysis shows that it relate to regulating the immune function of patients with IgA nephropathy, and effectively controlling infection of the upper respiratory tract.

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