

**ROLE OF PUNARNAVASAVA IN THE MANAGEMENT OF  
VRIKKAROGA W.S.R.TO NEPHROTIC SYNDROME: A CASE STUDY**

**Shubham Bharat Nikam<sup>1\*</sup>, Rohit A. Gadkari<sup>2</sup>, Karuna Ratnaparkhi<sup>3</sup> and Pankaj Bhansali<sup>4</sup>**

<sup>1</sup>PG Scholar Kaumarbhritya, CSMSS Ayurved Mahavidyala, Kanchanwadi, Aurangabad, Maharashtra.

<sup>2</sup>MD Kaumarbhritya, Associate Prof. Dept. of Kaumarbhritya CSMSS Ayurved Mahavidyala, Kanchanwadi, Aurangabad, Maharashtra.

<sup>3</sup>MD Kaumarbhritya, HOD & Prof. Dept. of kaumarbhritya CSMSS Ayurved Mahavidyala, Kanchanwadi, Aurangabad, Maharashtra.

<sup>4</sup>MBBS MD Pediatrics (Fellow in Ped Nephrology).

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**\*Corresponding Author**

**Dr. Shubham Bharat  
Nikam**

PG Scholar Kaumarbhritya,  
CSMSS Ayurved  
Mahavidyala, Kanchanwadi,  
Aurangabad, Maharashtra.

**ABSTRACT**

*Ayurveda* is the science of life, which deal with the prevention and cured for diseases. *Ayurveda* has many unique and important concepts are mentioned. *Ashtanga Ayurveda*<sup>[2]</sup> is one of the eight disciplines of *Ayurveda* in which *Kaumarbhritya* is mentioned. *Kaumarbhritya tantra* is a branch of *Ayurvedic* science which deals with upbringing of children, diseases of children and their *Chikitsa*. Nephrotic syndrome is the clinical manifestation of glomerular diseases associated with heavy proteinuria (i.e. proteinuria > 3.5g/24hrs or a urine Protein: creatinine ratio >2. In *Ayurveda* commonest physical manifestation of kidney related disease is swelling over the body, mostly below the eyes, feet & ankles. This swelling is known as *kaphaj shotha*.

Nephrotic syndrome is directly not mentioned in *Ayurveda*. But it can be correlated with the *Vrikkaroga* as per the symptoms described. *Punarnava* is regarded therapeutically highly efficacious for the treatment of Renal inflammatory disease.

**KEYWORDS:** *Vrikkaroga*, Nephrotic syndrome, *Punarnavasava*.

**INTRODUCTION**

*Kaumarbhritya tantra* is a branch of *Ayurvedic* science which deals with upbringing of

children, diseases of children and their *Chikitsa*.<sup>[1]</sup> Nephrotic syndrome is the clinical manifestation of glomerular diseases associated with heavy proteinuria (i.e. proteinuria > 3.5g/24hrs or a urine Protein: creatinine ratio >2. The triad of clinical findings associated with nephrotic syndrome arising from large urinary losses of protein are hypoalbuminemia (below >2.5g/dL), edema, hyperlipidemia (cholesterol >200/dL).<sup>[2]</sup> In *Ayurveda* commonest physical manifestation of kidney related disease is swelling over the body, mostly below the eyes, feet & ankles. This swelling is known as *kaphaj shotha*.<sup>[3]</sup>

Nephrotic syndrome is not directly mentioned in the *Ayurveda*. Any disease even if it is not described in ancient can be managed by applying the fundamental principles related to pathogenesis and treatment in *Ayurveda*. On this basis Nephrotic syndrome indicates the aggravation of *kapha dosha* along with vitiation of *rasadhatu*, *ojas*, *mutra* and *udaka* involving *mutravaha strotas*.<sup>[4]</sup> According to *Ayurveda*, Nephrotic syndrome is caused by the blockage of minute body channels called *strotas* in kidney known as '*mutravaha strotas*,<sup>[5]</sup> *Sarvang shotha* (edema), *swalpmutrata* (oligourea), *shuktiyuktra mutra* (proteinuria), *raktabhar* (hypertension) all are the signs of *vrikkashotha*.<sup>[6]</sup> The annual incidence of nephrotic syndrome range from 2-7 per 100000 and prevalence from 12-16 per 100000. Without treatment, Nephrotic syndrome in children is associated with a high risk of death.<sup>[7]</sup>

Various parts of *Punarnava* (*Boerrhavia diffusa*) are used for the treatment of numerous disorders. Also exhibit anti-inflammatory & diuretics as well as antihypertensive activities. Due to combination of these two activities, *Punarnava* is regarded therapeutically highly efficacious for the treatment of renal inflammatory disease.<sup>[8]</sup> *Punarnavasava* Ingredients have anti-inflammatory & diuretic properties, so it helps to reduce inflammation and reduce edema and swelling. It also increases the circulation of blood to the kidney.<sup>[9]</sup>

## CASE STUDY

A 5 year old male patient visited in OPD of *Kaumarbhritya* presenting with the complaints of *Sarvanga shotha* (Swelling over body - Face, Leg, Abdomen) and Decreased urine output since from 15 days.

**Name of patient:** ABC, 5 year old, Male

### Chief complaints

1. *Sarvanga Shotha* (Swelling over body - Face, Leg, Abdomen)
2. Decreased urine output

**Ashtavidha pariksha**

- |                                  |                                    |
|----------------------------------|------------------------------------|
| a. <i>Nadi</i> = 80 / min        | e. <i>Shabda</i> = <i>Prakruta</i> |
| b. <i>Mala</i> = <i>Samyaka</i>  | f. <i>Sparsha</i> = <i>Anushna</i> |
| c. <i>Mutra</i> = 1-2 time / day | g. <i>Druka</i> = <i>Shwetabha</i> |
| d. <i>Jivha</i> = <i>Sama</i>    | h. <i>Akruti</i> = <i>Madhyam</i>  |

**General examination**

PR – 80 / min

BP - 110/70 mm of Hg Height - 106 cm Weight - 16.3 Kg Temperature - 97.1 °F RS - AE= BE , Clear CVS – S1 S2 N

CNS - Conscious, Oriented P/A - Soft, No Tenderness

**Past history:** No history of any major illness

**Laboratory investigations**

1. Urinary protein
2. Serum creatinine
3. Serum albumin
4. Urinary Protein/Creatinine ratio

**Management**

Management is done with the help of *Punarnavasa* which is given as follows;

<i>Kalpa</i>	<i>Matra</i>	<i>Kala</i>	<i>Anupana</i>	<b>Duration</b>
<i>Punarnavasava</i> <sup>[10]</sup>	9 ml	<i>Adhobhakta</i> (BD)	Double dilution of <i>Jala</i>	45 days

Along with treatment proper *Pathya* - *Apathya* had been instructed to parents.

**OBSERVATIONS AND RESULTS**

Effect of the treatment on *Sarvanga Shotha* (Swelling over body- Face, Leg, Abdomen),  
Decreased urine output.

<b>Symptoms</b>	<b>Before treatment</b>	<b>After treatment</b>
<i>Sarvanga Shotha</i> (Swelling over body - Face, Leg, Abdomen)	3	0
Frequency of urine (in a day)	1-2 times / day	4-5 times day
Abdominal girth (cm)	60 cm	54 cm

## Results of investigations

Investigations	Before treatment	After treatment
1. Urinary protein	4 +	1 +
2. Serum Creatinine	0.7 mg / dL	0.7 mg / dL
3. Serum Albumin	1.5 g / dL	3.8 g / dL
4. Urinary protein / Creatinineratio	10	4

*Punarnavasava* was given to patient for about 45 days and it was examined on 15<sup>th</sup>, 30<sup>th</sup> and 45<sup>th</sup> day of study. During this treatment period, patient did not developed any type of complications.

## DISCUSSION

In this study, observations was done before and after treatment based on the symptoms of *Vrikkaroga* (Nephrotic syndrome). Nephrotic syndrome is the clinical manifestations of Glomerular diseases associated with heavy protienuria. It is developed due to the blockage of minute channels i.e. *Strotas* which is known as '*Mutravaha Strotas*'. The clinical symptoms of Nephrotic syndrome can be correlated with the *Vrikkaroga* in *Ayurveda*. Edema is the one of the most common presenting symptom of Nephrotic syndrome in Children. Nephrotic syndrome is one of the important chronic renal disorder in Pediatric population.<sup>[11]</sup>

*Punarnava* (*Boerhavia diffusa*) works as '*Shothaghni*' i.e. Anti-inflammatory properties. It is highly recommended for the Renal inflammatory diseases. *Punarnavasava* contains *Shunthi*, *Vasa patra*, *Marich*, *Pippali*, *Bruhati*, *Punarnava*, *Gokshur*, etc contents which having *Katu*, *Tikta*, *Madhura*, *Kashaya rasa*, *Shoolaprashamana*, *Tridoshaghna* etc effects.

*Punarnavasava* ingredients having Anti-inflammatory & Diuretic properties, which helps to reduce the inflammation, edema and swelling in the body. It also helps to increase the blood circulation to the kidney.

## CONCLUSION

In this case all symptoms like *Sarvanga Shotha* (Swelling over body - Face, Leg, Abdomen) and decreased urine output are markedly diminished in 45 days of study. In conclusion *Punarnavasava* have significantly effective in *Vrikkaroga* (Nephrotic syndrome), followed by proper *Pathya* - *Apathya*.

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