

NEPHROTIC SYNDROME IN CHILDREN – A WALK THROUGH AYURVEDIC VIEWAnu Shree¹, Narayan Pai B², Jithesh Chowta³

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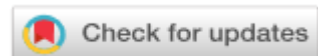
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**ABSTRACT**

Nephrotic Syndrome is a common systemic often relapsing illness found by most paediatricians in their clinical practice. The clinical and biochemical features of Nephrotic Syndrome results from the loss of a large amount of protein in the urine. About 90% of children suffer from the most common form i.e., Idiopathic Nephrotic Syndrome which shows insignificant glomerular abnormalities on light microscopy (MCNS). There is no direct reference regarding Nephrotic Syndrome in *Ayurveda* but can be interpreted its pathogenesis under the context of *Ojas* and *Ama*. Therefore, an outcome has improved with Ayurvedic management. Hence, here an attempt is made to understand the Nephrotic Syndrome in children from an *Ayurveda* point of view for its better management.

Keywords: Nephrotic Syndrome, Idiopathic Nephrotic Syndrome, MCNS, *Ojas*, *Ama*, *Ayurveda*.

INTRODUCTION

Nephrotic syndrome is primarily a paediatric disorder and is 15 times more common in children than in

adults. The incidence is 2-3/1,00,000 children per year.¹ Among this about 90% of children with Ne-

phrotic Syndrome have Idiopathic Nephrotic Syndrome also known as Primary Nephrotic Syndrome. The international study of kidney disease in children found minimal change diseases in 76.6% of children with Primary Nephrotic Syndrome which is usually between the age of 2-5 years and more common in boys.² A clinical picture of Nephrotic Syndrome is characterised by proteinuria (urine protein excretion >40mg/m²/hr), hypoalbuminemia (serum protein <2.5g/dL), hyperlipidemia (serum cholesterol >200mg/dl) and presence of edema.³ Nephrotic Syndrome is not directly mentioned in *Ayurveda*. *Acharyas* says any disease even if not described in the ancient text can be managed by applying fundamental principles of *Ayurveda* related to its pathogenesis. Most of the studies point it towards an immunologic base hence it can be considered under autoimmune disorders and can be very well compared with the concept of Aberrations of *Ojas* in *Ayurveda*.

Aim and Objectives: This study aims to understand Nephrotic Syndrome especially Minimal change nephrotic syndrome (MCNS) in children from an Ayurvedic point of view and its better management through *Ayurveda*.

Materials and Methods: Different Ayurvedic classical textbooks, modern textbooks, research papers and journals were referred.

Concept of Ojas:

Balya avastha is the stage where *Kapha* is dominant, meantime functionally underdeveloped and in the process of development.⁴ In *Ayurveda*, *Bala* is described under two contexts one is *Vyadhikshamatva* and another one is *Ojas*. *Acharya Charaka* had mentioned *Ojas* as *Prakruta Kapha* i.e. normalcy state of *Kapha* and its instability leads to certain fluctuation in immune system.⁵ These fluctuation results in Auto-immune disorder.

Pathophysiology of MCNS:

In children, immunity is determined by the *Kapha* which in turn is dependent on digestion. Digestion is the process that occurs with the help of various enzymes and secretions resembling *Agni* including *Jataragni*, *Dhatwagni* and *Bhutagni*. This leads to a healthy and strong *Dhatu*s.

Any disruption in this process results in the formation of *Ama* which is the main cause for all diseases as mentioned by *Acharya Charaka*.⁶ This *Ama* is present at the GIT level as well as the cellular level which means *Dhatwagni*s related to cellular metabolism and intracellular enzymatic process. This leads to *Dhatu Agnimandya* which occurs at *Medo dusti* level involving *Medovaha srotas* and its *moola* is *Vrukka* and *Vapavahana*. When *Dhatu Agnimandya* is present then *Dhatu vridhhi* will occur which is abnormal i.e., extra collection of immune complexes over basement membrane.

If this *Ama* is not cleared then it gets converted into *Amavisha* which is toxic, insoluble and exerts antigenic effects over the immune system leading to different exaggerated immune responses. This response is the cause for glomerular damage leading to pathology of Minimal change nephrotic syndrome.

Aberrations of Ojas v/s MCNS:

In *Ayurveda*, *Acharya Sushruta* discussed three specific aberrations or abnormalities of *Ojas*.⁷ These three states or abnormalities are considered as three categories of immune disorders.

1. *Ojo Visramsa* – Displacement of *Ojas* from its site which shows the following symptoms.
 - a) *Sandhi Vishlesha* = Inability of *sandhi* i.e., *sleshma kapha* is rearranged.
 - b) *Gatra sadana* = Due to protein loss.
 - c) *Dosha chyavana* = Migration of vitiated *dosha* to another site.
 - d) *Kriya sannirodha* = Exercise intolerance, dyspnea etc, because of oedema.
2. *Ojo Vyapat* – *Ojas* get vitiated by *Dusta Dosha* and *Dushya* shows the symptoms as follows.
 - a) *Stabdha* = Restricted body movements, stiff, firm.
 - b) *Guru gatrata* = Weight gain due to disturbed fat metabolism or collection of fluid.
 - c) *Vata shopha* = May be a generalised pitting type of oedema.
 - d) *Varna bheda* = Glossy, shiny look.
 - e) *Glani* = Discomfort physically and psychologically.
 - f) *Tandra* = Altered consciousness in a later stage.

3. *Ojo Kshaya* – Stage of immunodeficiency. In MCNS *Ojakshaya* is not there as a cause of Nephrotic Syndrome but it would present if the patient took steroids for a longer duration, then he may enter the stage of *Ojakshaya* as they cause immune suppression.

Treatment:

Ayurveda is a medical system using complex treatment approaches. The combination of different treatment elements exerts synergistic effects and is benevolent for the outcome. Therefore, a multi-modal Ayurvedic treatment has been selected in the management of Minimal change Nephrotic syndrome.

1. *Ama Pachana* – First line of treatment.
2. *Ojo Vyapathara Chikitsa*.
3. *Medovaha srotodustihara Chikitsa*.
4. *Yakruta uttejaka* drugs – To increase liver function.
5. *Rasayana* – For regeneration of damaged tissues.
6. Protein supplementation.
7. Correction of food habits and lifestyle.
8. Psychological treatment.

DISCUSSION

Observation suggests that Nephrotic Syndrome is a chronic, relapsing renal disease commonly seen in paediatric practice having a risk of systemic infection, renal insufficiency and many other complications. According to *Ayurveda* though all *Tridosha*, as well as *Dushya* (*Rasa, Rakta, Udaka, Mutra* and *Oja*), are involved, *Kapha* and *Vata* are more aggravated in this disease. Literature suggests Nephrotic Syndrome may be a consequence of a primary glomerular defect or an immunological abnormality that comes under the broad heading of *Ama*. In *Ayurveda* it can be managed in two ways, firstly eradicate the cause for disease; secondly treatment of disease through drugs which are helpful to reduce the symptoms as well as regenerate the damaged tissues. Along with this following are *Dinacharya* and *Ritucharya* for their prevention in future.

Limitations:

1. Case of Nephrotic syndrome which is in end-stage.

2. Cases that are not in a position to withdraw the steroids due to the risk of relapse.
3. Childless than 2 years due to limitations in the administration of medicines.
4. Cases associated with other pathology of the urinary tract.

CONCLUSION

Minimal change Nephrotic syndrome most common type of Idiopathic Nephrotic Syndrome is associated with complex disturbances in the immune system. Several immune modulators and immune suppressants have been used for the management of Nephrotic syndrome. But these drugs have potentially harmful side effects, hence herbal immune modulators and nephroprotective drugs can be adopted for its management.

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