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Integrative Approach to Managing Nephritic Syndrome in Children: A Case Study Kate S.¹ Shelke S.²

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Abstract:

Nephritic syndrome in children is a significant cause of morbidity, particularly in developing countries. Traditional management strategies often involve corticosteroids and immunosuppressive agents, which, while effective, can lead to adverse effects and frequent relapses. This article presents a comprehensive case study of a 6-year-old male diagnosed with acute nephritic syndrome, emphasizing an integrative management approach that combines conventional medical therapy with adjunctive traditional Ayurvedic medicine, nutritional support, and lifestyle modifications. The case underscores the potential benefits of a holistic Ayurvedic treatment paradigm in improving patient outcomes and quality of life. **Keywords:** Nephrotic syndrome, CKD, Autoimmune disorder, Nephritic syndrome, Integration, Ayurveda, Glomerulonephritis.

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INTRODUCTION:

In Ayurveda, Nephritic Syndrome is often correlated with "Mutravaha Srotas Dushti" (disorders of the urinary system), particularly involving Kapha and Pitta dosha aggravation. It may be associated with conditions like Prameha or Mutrakrichha depending on symptoms like proteinuria, oedema, and hypoalbuminemia 1 Haematuria, hypertension, oliguria, and variable levels of proteinuria are the hallmarks of nephritic syndrome. Poststreptococcal glomerulonephritis (PSGN) continues to be the most prevalent cause in paediatric populations, especially in areas with inadequate access to medical treatment. The main goals of standard treatment regimens are to address the underlying cause and manage symptoms. But long-term pharmacotherapy's adverse effects and symptom recurrence make it investigate integrative necessary to strategies that combine treatment conventional and alternative medicines.². Ayurveda, the traditional system of medicine originating from India, offers a holistic and personalized approach to health. In the context of kidney diseases-including nephritic syndrome, nephrotic syndrome, chronic kidney disease (CKD), and acute kidney injury (AKI)-Ayurveda focuses on restoring the balance of the body's doshas (Vata, Pitta, and Kapha), improving renal function, and preventing disease progression 3

Case Presentation Patient Profile: Age/Gender: 6-year-old male ISSN: 2583-3677

Presenting Symptoms: Facial edema, low urine output, dark colour urine, low appetite, abdominal discomfort.

Medical History: Recent past history of pharyngitis two weeks before

Physical Examination: Periorbital edema, mild ascites, and hypertension (BP: 130/90 mmHg)

Laboratory Findings:

- > Urinalysis: Hematuria, proteinuria
- Serum creatinine: Elevated
- > Complement C3 levels: Decreased
- > Antistreptolysin O (ASO) titer: Elevated

Diagnosis: Acute post-streptococcal glomerulonephritis (APSGN)

Integrative Management Approach 1. Conventional Medical Therapy

Antihypertensive Agents: Initiated to manage elevated blood pressure.

Diuretics: Administered to address fluid overload and edema.

Antibiotics: Prescribed to eradicate any residual streptococcal infection ⁴.

2. Nutritional Support

Given the role of nutrition in managing nephritic syndrome, a diet plan was formulated focusing on:

Sodium Restriction: To control hypertension and prevent fluid retention.

Adequate Protein Intake: Ensuring sufficient protein to compensate for urinary losses without overburdening the kidneys.

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Calcium and Vitamin D Supplementation: To support bone health, especially important due to potential corticosteroid use⁵.

3. Traditional Medicine Integration Dosha Assessment:

Kidney disorders are primarily considered a result of **Kapha and Vata dosha imbalances**, along with involvement of **Mutravaha srotas** (urinary channels)

Shamana (Palliative Therapies):

The use of herbal and mineral preparations to control symptoms and rejuvenate renal tissues and lifestyle and dietary modifications play a crucial role.

- **1. Punarnavadi Kashayam**. (10ml bid with water for 30 days) A decoction used to reduce swelling and enhance urine flow.
- **2. Gokshuradi Guggulu**: (1 tablet bid with water for 30 days.) Supports renal health, diuresis, and detoxification.
- **3. Chandraprabha Vati**: (1 tablet bid for 30 days with water.) Balances Kapha and Vata, often used in urinary tract disorders.

Incorporating traditional medicine practices aimed at enhancing renal function and reducing inflammation:

Herbal Remedies: Use of specific herbs known for their nephroprotective properties, under the guidance of a qualified practitioner.

Ayurvedic Therapies: Tailored treatments focusing on balancing bodily systems and supporting kidney healthm ⁶.

Lifestyle Recommendations:

Avoid cold exposure, excessive physical exertion, and irregular sleeping patterns.

To promote overall well-being and prevent relapses:

Physical Activity: Encouraging ageappropriate exercises to improve physical function and reduce steroid-induced myopathy.

Stress Management: Implementing techniques such as mindfulness and relaxation exercises.

Regular Monitoring: Scheduled follow-ups to monitor renal function and adjust treatment as necessary ⁷.

Avoid cold exposure, excessive physical exertion, and irregular sleeping patterns.

Evidence and Integration

Scientific validation: Certain Ayurvedic herbs like *Punarnava* have shown promising anti-inflammatory and nephroprotective effects in preclinical studies .^{8,9}

Integration with allopathy: Some nephrologists use Ayurvedic support in stable CKD patients under close monitoring to manage symptoms and improve quality of life ¹⁰.

Safety: Herbal therapy should be supervised to avoid nephrotoxicity, particularly in patients with impaired renal clearance ¹¹.

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Outcome and Follow-Up

Over a six-month period, the patient demonstrated significant improvement:

Blood Pressure: Normalized without the need for ongoing antihypertensive medication.

Urinalysis: Resolution of hematuria and proteinuria.

Renal Function: Serum creatinine levels returned to normal.

Quality of Life: Enhanced energy levels and return to regular school activities.

The integrative approach contributed to a holistic recovery, minimizing the reliance on long-term pharmacotherapy and reducing the risk of relapse.

Panchakarma Therapies (Detoxification)

These may be suggested depending on patient condition to avoid the relapse:

- Virechana (Purgation) to eliminate aggravated Pitta dosha
- Basti (Medicated enemas) for systemic detox and nourishment
- Nasya occasionally used if associated Kapha disorders are present

Limitations and Precautions

Not all herbs are safe in every stage of kidney disease—professional supervision is essential.

Heavy metal content in some Ayurvedic preparations (especially rasaushadhis) must be carefully monitored and sourced from reputable manufacturers. Patients with advanced CKD or on dialysis should undergo Ayurvedic therapy only as a complementary strategy and not a replacement for standard care ^{12.13}.

Important Considerations

Ayurvedic treatment should always be supervised by a qualified Ayurvedic practitioner.

Integrative care with conventional nephrology is crucial in managing complications.

Regular monitoring of proteinuria, serum albumin, creatinine, and BP is essential.

DISCUSSION:

This case exemplifies the potential benefits of an integrative approach in managing pediatric nephritic syndrome. Combining conventional medical treatments with nutritional support, traditional medicine, and lifestyle modifications can address the multifaceted nature of the disease ¹⁴. Such a comprehensive strategy not only targets the physiological aspects but also supports the overall well-being of the patient. Ayurvedic treatment for Nephritic Syndrome focuses on balancing the body's doshas (primarily Kapha and Pitta) and restoring kidney function through herbal formulations, dietary changes, and lifestyle modifications.Ayurvedic management of kidney diseases emphasizes early detection, personalized therapy, detoxification, and rejuvenation of renal tissues. Steroid therapy is a cornerstone in the management of nephritic syndrome, particularly when immune-mediated inflammation is involved. The term "nephritic syndrome" typically

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refers to a constellation of symptoms including hematuria, hypertension, reduced glomerular filtration rate (GFR), and variable proteinuria, often associated with glomerulonephritis. It is best used as an integrative approach alongside conventional medical care, particularly for patients in early to moderate stages of kidney disease ¹⁵. The case underscores the potential benefits of a holistic treatment paradigm in improving patient outcomes and quality of life.

Further research and clinical trials on large sample size are needed to establish standardized integrative protocols and evaluate their efficacy across diverse populations.

CONCLUSION:

An integrative management approach for nephritic syndrome in children, as demonstrated in this case study, can lead to improved outcomes and quality of life. By addressing the disease through multiple therapeutic avenues, healthcare providers can offer more personalized and effective care.

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