

Case Report

# Interesting Results of Poly Herbomineral Ayurvedic Medicine Agnitundi Vati in Nephrotic Syndrome

**Dr. Prashant kumar Gupta**

Lecturer, Department of Balroga, Lalit Hari State Ayurved Post Graduate College, Pilibhit, Uttar Pradesh, India

Corresponding Author: Dr. Prashant kumar Gupta

## ABSTRACT

Nephrotic Syndrome is characterized by Proteinuria (> 40 mg per square meter body surface area per hour in children), Hypoalbuminemia (< 2.5 g/dl), Hyperlipidaemia, and edema that begin with face. One diagnosed case of Nephrotic syndrome was reported in Out Patient department (OPD). Patient reported frequent/ common relapses and most relapses were surfaced whenever steroids were discontinued/tapered. Ayurvedic medications such as Gokshur gugglu, Punarnavasav, Vrikkdoshantak syrup (kudos pharma), Syp. Indukantam (Kottakal), Giloy Swaras were started showed mixed effects (relapse were there but frequency reduced). Meanwhile patient complained cough up on taking food/milk and loss of appetite along with other relapsing features (urine albumin +++). We added Agnitundi Vati (4 mg/kg) for decreased appetite and cough, suspecting problem in swallowing along with other medication for relapse. Features like swelling over face got relief but surprisingly protein in urine (proteinuria) was absent within 2-3 days which was earlier possible only after steroid restart. We advised Agnitundi Vati (4 mg/kg) for every next relapse and saw same results. Here we are reporting case of Nephrotic Syndrome which is under treatment showing/sustaining results in proteinuria and other features like hyperlipidemia and general condition.

**Key words-** Nephrotic Syndrome, Proteinuria, Agnitundi Vati, Hyperlipidemia.

## INTRODUCTION

Childhood Nephrotic Syndrome is a group of symptoms that indicates kidney damage results in release of too much protein from the body in urine. [1] It is characterized by Edema, Urine Protein: Creatinine ratio >2000mg/gm, protein > 300 mg/dl, dipstick urine protein 3+ (+++) and hypoalbuminemia. [2] Lipid abnormalities generally resolve when nephrotic syndrome is in remission. [3]

Here we are presenting a case of Nephrotic Syndrome well responding to a polyherbomineral Ayurvedic compound Agnitundi Vati.

## CASE SUMMARY

A male child aged 3 years 9 months (on 15 April 2018) under treatment since the

age 1 and 4 months (November 2015), resident of Village Ghumanheda, New Delhi complained about the persisting puffiness of face (12/08/2015) and anasarca (18/09/2015), got initial treatment for complaints at local area but later on diagnosed as Nephrotic syndrome (05/10/2015) at AIIMS New Delhi and treated as per recommended guidelines of nephrotic syndrome. (Table no 1)

Table no 1.

| Oral Steroid Therapy (prednisolone)             |                         |
|---|-------------------------|
| Started on 22/10/2015                           | Stopped on 23/12/2015   |
| Steroid free time (3 month)                     |                         |
| Started on 02/April/2016                        | Stopped on 14/may/2016  |
| Steroid free time (1 month 15 days)             |                         |
| Started on 15 June /2016                        | Stopped on 31 july/2016 |
| Steroid free time (since then) (1 year 6 month) |                         |

**Birth history** -Patient birthed to non-consanguine parents and was a normal vaginal delivery/full Term/cried immediately after birth/No post natal complication/ No Neonatal Hyperbilirubinemia /No Nursery stay.

**Treatment History** - Patient reported to our Out Patient Department in November 2015 for Ayurvedic treatment although was taking oral steroid therapy as directed by AIIMS New Delhi. Patient was given Gokshur Guggulu (125 mg tab crushed once daily), Punarnava Mandur / Punarnava Guggulu / Punarnavasav (1 tab, crushed twice/125 mg crushed divided twice/ 5ml twice daily), Shringa Bhasma (60 mg twice daily), Gandhak Rasayan (40 mg twice daily), HaridraKhand (1 gm twice daily), Syp Vrikkadoshantak (Kudos pharma) (2.5 ml thrice daily) Giloy Swaras (2.5 ml thrice daily) Syp. Neeri KFT (Aimil)(2.5 ml thrice daily) Syp. Indukant Amritam (Kottakal) (2.5 ml thrice daily), all above medicine was given with some shift and gaps according to response in symptoms and associated/seasonal ailments. Other drugs were also advised for associated ailments - Sitopaladi churn + chousath pipalli churn + yashad bhasm + Syp. Sarasapilla + somvalli churn etc.

After putting the patient on Ayurvedic medicines there was improvement in severity of symptoms but relapse were reported in April 2016 and June 2016 and at every relapse oral steroid therapy along with Ayurvedic medicines were initiated and response was fast hence oral steroid therapy was cut short to only 4-6 weeks (Table No -1). Meanwhile patient complained of loss of appetite and cough after taking food/milk along with other relapsing features (urine albumin +++). So we added Agnitundi Vati (4 mg/kg) (25/12/2016) with other medication for relapse (given above). Features like swelling over face got relief but surprisingly protein in urine (proteinuria) was absent within 2-3 days which was earlier possible only after steroids restart. We advised Agnitundi Vati (4 mg/kg divided two doses) (May 2017,

June 2107 and September 2017) for every early relapse feature (2+ or more) and saw same results. Hence adding Agnitundi vati required no oral steroid therapy then onwards.

## DISCUSSION

Agnitundi vati is a polyherbo-mineral compound advised generally for indigestion and fever. It contains Haritaki, Chitrak, Bhibhitak, Ajmoda, Amalaki, Cumin, Vidang, Kuchala and Vatsanabh. Strychnine and Gallic acid are main crystalline alkaloids. Strychnine is a bitter alkaloid primary affects the motor nerve in the spinal cord which control muscle contraction, [4] Gallic acid is commonly used in pharmaceutical industries showed cytotoxic activity against cancer cell and it can be used to treat albuminuria and diabetes. [5,6] During the initial phase of treatment, multiple medicines were used but in-spite of vigorous efforts, limited success was seen in symptoms and investigations; twice it happened that oral steroid therapy was given along with ayurvedic medicines to control the symptoms. Benefit was such that steroid free time has increased and duration of next steroid therapy was cut short to 6 weeks compare to the previous therapy of 8 weeks. Upon adding Agnitundi vati (December 2016) to main treatment showed promising results and then onwards oral steroid therapy was never been required for relapse, although multiple times urine dipstick test showed 2+ or more (considering as prodermal feature for relapse) but adding Agnitundi vati 4mg/kg divided two doses for a week has lead to gradual reduction of protein content in urine up to negative in next 7 days.

Hyperlipidemia is a parameter for nephrotic syndrome, [7] lipid abnormalities generally resolve when nephrotic syndrome is in remission. [3] Dietary modification doesn't appear to be effective in limiting hyperlipidemia during active nephrotic syndrome. [8] Chronic hyperlipidemia has been linked to increase risk of atherosclerosis and coronary heart disease.

Chronic hyperlipidemia has also been associated with progression of renal disease. However, studies over lipid lowering agents in pediatric INS (idiopathic Nephrotic Syndrome) have not shown an improvement in proteinuria or progression of renal disease. [9] In routine pediatric practices, hyperlipidemia is not looked considerably in spite of its linking with progression with renal disease. [9] Here study shows significant correction in Sr. Cholesterol Level.

Investigations of above patient showed that there is a significant improvement in Serum Cholesterol (regressing from 364 mg/dl (25/09/2015) to 132 mg/dl (21/10/2017) (Diagram 3). Again Urine Protein and Creatinine ratio (>3.5 mg/gm/Cr is considered as Nephrotic ratio) improved from 20 mg/gm/Cr (24/12/2015) to 11.23 mg/gm/Cr (26/03/2016) to 1.86 (15/03/2017) to 1.18 mg/gm/Cr (23/10/2017). It showed that P:C ratio has regressed to well below nephrotic ration (Diagram 1).

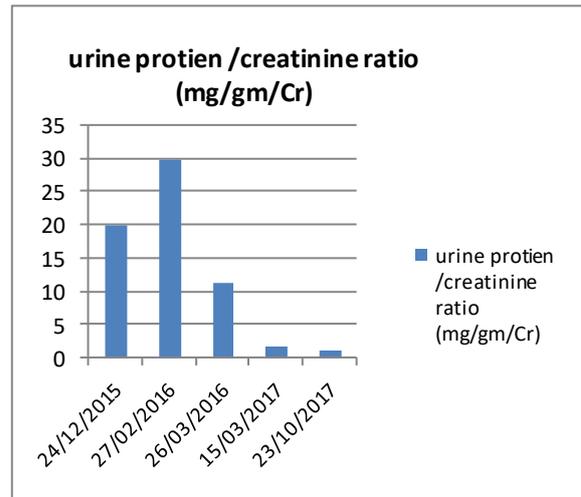


Diagram -1 showing Change in P:C ratio during treatment

Total Protein to Albumin ratio was high due to low albumin level in blood 5.6/1.3(22/09/2015). It showed slight deterioration during the relapse period and dropped to 4.1/2.2(24/09/2015) and 4/3.2 (6/2/2016). It increased to 5.4/3.3 (25/02/2016) and then 5.3/3.7(8/9/2016), 5.4/3.7 (23/03/2017) and last to 5.5/3.6 (28/07/2017) (Diagram 2).

Liver markers like SGOT/SGPT were raised initially 82/62 (6/2/2016), and gradually settled to normal level 55/42 (8/9/2016), 34/22 (23/3/2017) and finally to 41/32 (28/07/2017)

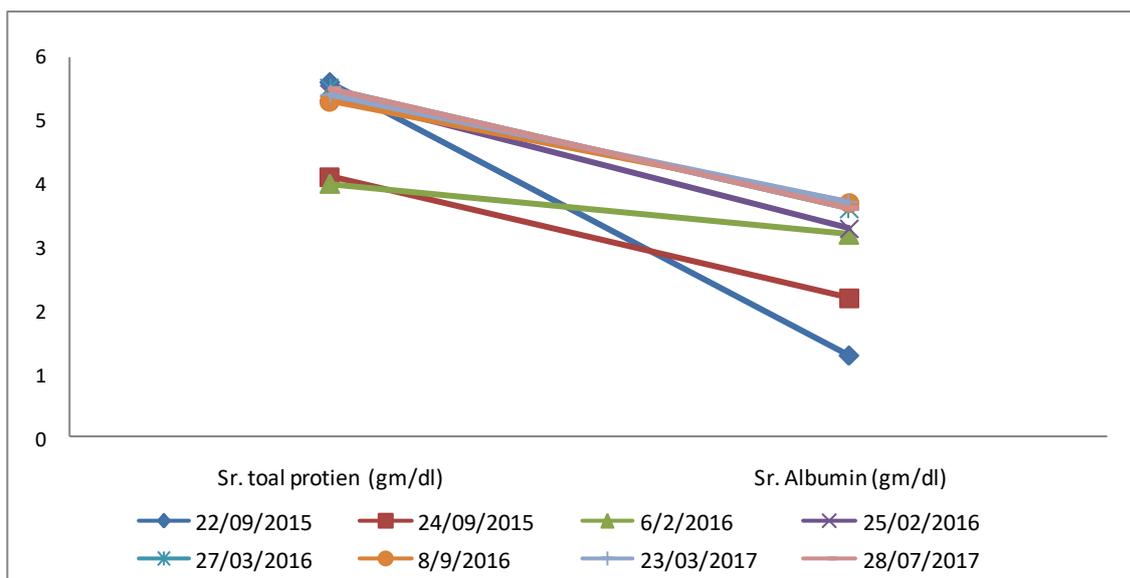


Diagram - 02 showing Serum Total Protein to Albumin Ratio.

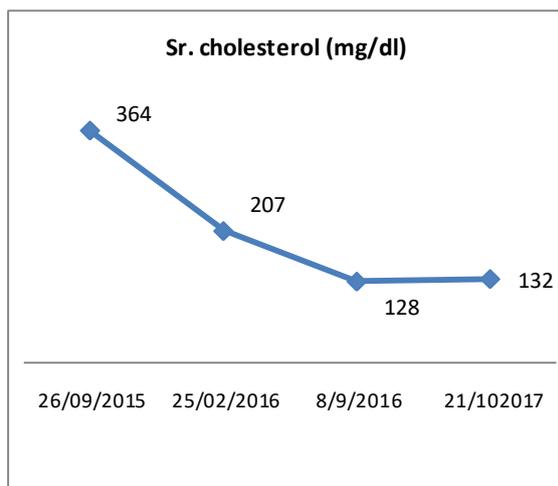


Diagram -03 showing correction of Sr. Cholesterol during treatment.

## CONCLUSION

- Urine protein regressed to traces/ Negative every time after giving Agnitundi Vati.
- Significant Hyperlipidemia correction in above case, which is otherwise overlooked in routine practices of Nephrotic Syndrome treatment.
- Limits Steroid Uses so preventing side effects of long term steroid uses.
- Till date no side effect for Agnitundi Vati is observed for its episodic uses.

Source of funding – Nil

Conflict of Interest - Nil

## REFERENCES

1. National institute of Diabetes and kidney Disease, child hood nephritic syndrome
2. Lombel RM, Gipson DS, Hodson EM. Treatment of steroid-sensitive nephrotic

syndrome: new guidelines from KDIGO. *Pediatr Nephrol.* 2013 Mar. 28(3):415-26

3. Prescott WA Jr, Streetman DA, Streetman DS. The potential role of HMG-CoA reductase inhibitors in pediatric nephrotic syndrome. *Ann Pharmacother.* 2004 Dec. 38(12):2105-14.
4. Kamal, et al.(2012) simultaneous HPTLC determination of strychnine and brucine in strychnos nux-vomica seed. *Journal of pharmacy and bioallied Sciences* , 4(2), 134-139
5. Vineeta V Khanvilkar et al. standardisation of agnitundi vati: An ayurvedic polyherbal formulation, *International journal for pharmaceutical research scholars* vol.5,1-1,2016. 75-83.
6. Phiriyawirut, M., & Phachamud, T. (2011). Suitable electrospinning condition for gallic acid-loaded cellulose acetate fiber. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, 2, 210-220.
7. Mohammad Alaa et al., hyperlipidemia in childhood nephrotic syndrome pediatric nephrology, Oct. 1993, vol.7, issue 5, pp 559-566.
8. Fervenza FC, Abraham RS, Erickson SB, et al. Rituximab therapy in idiopathic membranous nephropathy: a two year study. *Clin J Am Soc Nephrol.* 2010. 5:2188-2198
9. Bonilla-Felix M, Parra C, Dajani T, Ferris M, Swinford RD, Portman RJ. Changing patterns in the histopathology of idiopathic nephrotic syndrome in children. *Kidney Int.* 1999 May. 55(5):1885-90.

How to cite this article: Gupta PK. Interesting results of poly herbomineral ayurvedic medicine agnitundi vati in nephrotic syndrome. *Int J Health Sci Res.* 2018; 8(6):385-388.

\*\*\*\*\*