GLOBAL HYPERTENSIVE NEPHROPATHY CONtributes second position as a leading cause of progressive renal failure after Diabetic nephropathy. The increased morbidity and mortality with unaffordable high cost associated with end stage renal disease has put a question to emerging modern science. So, an alternative and safe management should be adopted to meet the demands of the burning issue. A 50 year old male patient with uncontrolled hypertension, raised serum creatinine, blood urea and decreased eGFR for more than 6 months came to Kayakshikita OPD, Govt. Ayurvedic college and hospital, Guwahati. Patient was treated with Nitya virechan with Eranda taila and Haritaki churna, poly herbo-mineral research drug with Tandulyodak and Punarnava panchanga kwhat as anupana and with specific pathya ahar for 1 month period. Assessment was done before and after treatment. After 1 month of treatment, a significant decrease seen in the blood pressure and reduction in serum creatinine and blood urea with increase in eGFR was also noticed. Hypertensive nephropathy was gradually managed by treatment protocol mentioned in Ayurveda based on hetu and vryadi avastha.

Obesity, hypertension, diabetes mellitus and drugs are the major risk factors for renal dysfunction as on today. Hypertensive Nephropathy is one of the cause of End stage Renal disease with increased incidence of Dialysis and Renal transplantation after Diabetic nephropathy.

CASE REPORT
A 50 year old male patient visited OPD of Kayakshikita, Govt. Ayurvedic College and Hospital, Guwahati with the chief complaints of pedal oedema, fatigue and on and off low urine output since 1 year. The patient was a known case of hypertension and was on anti-hypertensive drug (Telmisartan 80mg once daily). The patient was non-vegetarian, with decreased appetite and sleep. He had irregular bowel habits. No addiction was present. Before treatment, in physical examination, blood pressure was 140/110mmHg, pulse rate was 72 bpm and respiratory rate was 22/min with temperature febrile. On systemic examination, distended abdomen was found with mild tenderness in left and right renal angle. On abdomen percussion, tympanic sound was heard. No abnormality was detected in other systemic examination.

MATERIALS AND METHOD
The poly herbo-mineral research drug[1-3] in churna form (2g) with Tandulyodak[4,5] (25ml) and Punarnava panchanga churna kwath (30ml) as anupana and nitya virechan (Eranda taila 10ml + Haritaki churna 5g) at bed time were advised for 1 month. A follow up of 15th day and 30th day have been taken. Composition of the research drug:

<table>
<thead>
<tr>
<th>Herb</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ela</td>
<td>1 part</td>
</tr>
<tr>
<td>Pashanbhaeda</td>
<td>1 part</td>
</tr>
<tr>
<td>Pippali</td>
<td>1 part</td>
</tr>
<tr>
<td>Shilajitni</td>
<td>1 part</td>
</tr>
</tbody>
</table>

Along with the oral medication, the pathya ahar (diet chart) was also advised to the patient. Under nutritional management, the patient was advised low sodium, potassium and phosphorus diet.

RESULT AND DISCUSSION
In a follow up of 15 days and 1 month, a marked improvement was noticed in both subjective and objective criteria.

### Subjective criteria

<table>
<thead>
<tr>
<th>Before treatment</th>
<th>After treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedal oedema</td>
<td>+ +</td>
</tr>
<tr>
<td>Loss of appetite</td>
<td>Severely present</td>
</tr>
<tr>
<td>Nausea</td>
<td>Present</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Present</td>
</tr>
<tr>
<td>Abdomen bloating</td>
<td>Present</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Severely present</td>
</tr>
<tr>
<td>Breathlessness</td>
<td>Absent</td>
</tr>
<tr>
<td>Muscle cramps</td>
<td>Absent</td>
</tr>
</tbody>
</table>

### Blood pressure

Before treatment:
- 140/110mmHg

After treatment:
- 150/80mmHg

Uncontrollable hypertension or longterm hypertension results podocyte injury due to increased glomerular capillary wall thickness which progressively leads to Hypertensive nephropathy or hypertensive glomerulosclerosis. Proteinuria is one of the important indicator of developing nephropathy. As the proteinuria increases, the damaging of the nephrons also progresses parallely resulting decreased Glomerular filtration rate (GFR).

Each ingredients of the poly herbo-mineral research drug not only exerts nephro-protective effect but has a holistic approach.

**Ela:**
- The crude extract of cardamom has shown blood pressure activity along with diuretic and sedative effects in animals.[6]
- Experimental study showed Renal protective effect of cardamom against nephrotoxicity induced by gentamicin in rats.[7]


**Pashanbheda:**
- Experimental studies showed that the methanolic and alcoholic extract of rhizomes of *Berginia ligulata* have antitussive activity, free radical scavenging activity, anti diabetic activity, diuretic activity.¹⁰
- Alcoholic extract (500mg/kg body weight) of roots of *Berginia ligulata* was found to be effective in increasing urinary electrolyte concentration of Na+, K+ and Cl− which indicates its significant diuretic activity. It was concluded that the active principles like flavonoids and saponins present in alcoholic extract of roots might be responsible for diuretic activity."¹⁰

**Pippali:**
- Piperine possesses a CCB effect that is responsible for the cardio-depressant and vasodilator activities that provide the pharmacological basis for the blood pressure lowering effect, and the associated vasoconstrictor effects provide substantial evidence to the restricted decrease in blood pressure and small increase in the blood pressure followed by decline after each dose.¹⁰
- Recent research on *Piper longum* indicates that it has anti-inflammatory action.⁸
- Piperine has been shown to enhance the bio-availability of structurally and therapeutically diverse due to its easy partitioning and increasing permeability. The fruit extract has been found to have immunomodulatory effect.⁹

**Shilajita:**
Shilajita contains 70-80% fulvic acid. Fulvic acid has the anti-oxidation property an experimental studies showed that *shilajita* composed of humic substances and fulvic acid has strong immunomodulatory effect.¹⁰¹¹

Both Shilajit and pippali come under rasayan particles and therefore have the property of rejuvenating the damaged tissues and maintaining the quality of tissues. They undergo srotoshodan of mutravaha srotas and hence in the prevention of avil mutrata(turbid urine). They may come under as Naimittik rasayan for mutravaha srotas.

**Tandulyodak** is sheeta virya which will help in relieving burning sensation of chest and will balance the increased ushnata after taking the research drug.¹³¹⁴

**Punarnava** is tridoshahara, kaphapittasamak, sothahara and has mutrakricha actions. Experimental studies on *Boerhavia diffusa* showed protection against structural and functional damage of kidneys induced by gentamicin possibly due to its antioxidant properties.¹²

**CONCLUSION**

This was a single case study on the nephro-protective effect of the polyherbo-mineral research drug in Hypertensive nephropathy. As the observations and results have been promising, a larger clinical trial is under process to establish the efficacy of the research drug. A mass awareness amongst the people is required to discuss about the serious complications of hypertension including nephropathy, so that the progression of disease can be stopped. Lifestyle modifications with proper diet and *Pramayram* should be encouraged to each and every patient.

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**Conflict of interest**- none

**REFERENCES**