

AN OUTLOOK ON KAPHAJA SHOTHA w.s.r. RENAL OEDEMA

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ABSTRACT

Physical appearance of humans is regarded as important for physical attractiveness. More emphasis is given to healthy state of individual, as well as the skin care as it has enormous cosmetic value and prefers many physiological facts. Oedema is defined as abnormal and excessive accumulation of free fluid in interstitial tissue spaces and serous cavities. Oedema is a clinical condition which may manifest either by local cause with minimal tissue involvement or as a consequence of multi system tissue injury. A major attention to oedema is given when it is a clinical manifestation of cardiac, renal, hepatic disease. Word oedema and inflammation takes shelter under *Shotha*. Word *Shotha*, *shvayathu*, swelling where patient seeks medical attention frequently. Renal oedema is an outcome of kidney disease which may be acute category like acute kidney injury or chronic category like chronic kidney disease. Incidence of kidney disease especially chronic category has doubled in 15 years, having prevalence approximately 14% which needs extreme alertness. *Shotha* is treated as separate dis-entity. It appears as a prodromal symptoms, symptom, complication or fatal sign. One of classification of *shotha* is *Nija* and *Agantu*. Even though all the three *doshas* are involved in the manifestation of all types of *shotha*, it is on the basis of predominance of respective *doshas* i.e. *vata*, *pitta*, *kapha* varieties of diseases are determined and the therapies are prescribed accordingly.

Keywords: *Shotha*, Renal oedema, *Kaphaja Shotha*

INTRODUCTION

Oedema is defined as abnormal and excessive accumulation of free fluid in interstitial tissue spaces and serous cavities. Oedema can manifest either by local cause with minimal tissue involvement or as a consequence of multi system tissue injury. When oedema becomes a clinical manifestation of cardiac, renal, hepatic disease a major attention to it is given. According to ayurveda oedema and inflammation takes

shelter under *Shotha*. Renal oedema is an outcome of kidney disease which may be acute category like acute kidney injury or chronic category like chronic kidney disease. In this article focus is made to see the condition renal oedema which is an outcome of kidney disease especially chronic category under the light of *kaphaja shotha*.

Derivation

Word *shotha* derived from *atuch pratyaya* added with *shvi dhatu*¹.

Oedema is a greek word meaning swelling.

Definition

Shotha refers to *gativrudhi*², which means unstable movement i.e. *anavasthita*. Acharya charaka refers *utseda linga*³ as *pratyatma lakshana of shotha*.

Oedema may be defined as the abnormal and excessive accumulation of free fluid in the interstitial spaces and serous cavities⁴.

Paryaya

*Shotha, shopha, shvayathu*⁵, *utseda, samhata*

Oedema, anasarca, swelling, dropsy

Nidana

The causative factors leading in to shotha can be categorised under following parts

1. *Dosha utkleshakara nidana*⁶
2. *Nidanarthaka*^{7,8}
3. *Marma upghatakara nidana*⁹.

The *Doshotkleshakara nidana* include curd, uncooked food, incompatible food, poison, salt, red meat, indigestion, heavy food, sour food, wine, newly harvested rice, newly harvested grains, holding natural urges, travelling in horse elephant etc, not walking excessive walking, improper delivery, problem during pregnancy.

When we go through the qualities of above said ahara's they are rich in proteins. Protein yields nitrogenous breakdown products which needs to be excrete by the kidney. In liver disease protein should be good food quantity as it optimally used in protein synthesis instead of breakdown. This may cause renal insufficiency and there by produces oedema

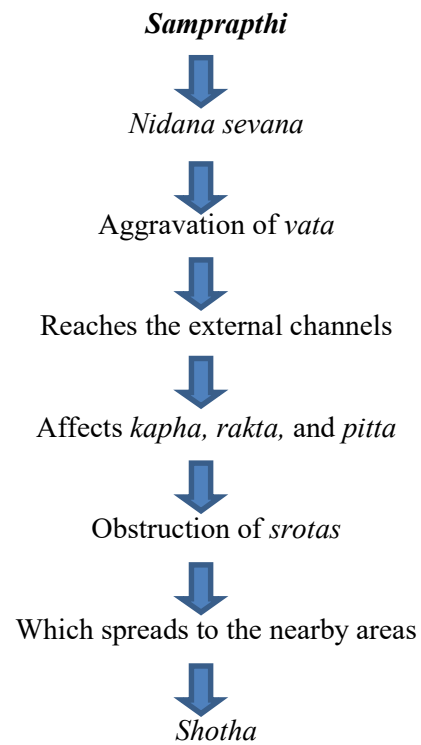
Lavana includes sodium chloride, calcium etc. Salt load increases the local concentration of Angiotensin 2 produced by the kidney, thus constricting the efferent vessels of the glomerulitis followed by an increase in intraglomerular pressure and filtration leading to oedema.

Nidanarthakara are those factors which few diseases serve as aetiology for another disease. This can be well understood by *pliha roga* leads to development of *udara roga*, *udara roga* manifests *shotha*. Also lit-

tle disease like *arshas*, *shwasa* leads to manifestation of *shotha*.

In *arshas* the veins around anus may bulge due to increased pressure by which haemorrhoids develops. Chronic blood loss is seen due to haemorrhoids which lead to anaemia. In chronic severe anaemia there is salt and water retention, reduced blood flow and GFR. This causes reduced inhibition of basal endothelium derived relaxing factor activity and generalised vasodilation. The low blood pressure may be stimulus for neurohormonal activation and salt-water retention leading to oedema.

Marmopaghata – According to our classics *Basti*, *Hrudaya* and *Shiras* are very important which may relates to cardiac oedema, cerebral oedema and hepatic oedema.

**Types**

- Depending on extent of shotha and shape of shotha classified in to many types
Charaka- *Dwividha, Trividha, Chaturvidha, Saptavidha, Asthavidha, Ekavidha*¹⁴.
Sushruta- *Panchavidha*¹⁵
Kashyapa- *Shatvidha*¹⁶

Vagbhata and Bhava Praksha- *Navavidha*^{17,18,19,20}.

- Other classification are

Sarvanga, Ekanga

Pruthu, Unnata, Grathita

Based on location- localized and generalized

Based on fluid composition- transudate and exudate.

Based on clinical finding- pitting and non-pitting²¹.

Purvaroop^{22,23,24}

The features mentioned in prodromal symptoms resemble the features that are present during the development of inflammatory swelling or any other types of oedema. The poorvaroop mentioned in samhitas are as follows:

Ushmata- appreciation of warmth is more evident in conditions of swelling due to inflammatory process. There will be increased blood flow towards the region resulting in vascular dilatation and warmth.

Davathu- swelling caused by oedema will usually makes skin feel tight, heavy or sore, tingling sensation or burning sensation around the swelling.

Sirayama- Dilatation of blood vessels mainly caused by relaxation of smooth muscle cells particularly in the large arteries, large veins, small arterioles. In the inflammatory condition the histamine from the surrounding basophils, mast cells are released there by triggering the vasodilatation. These changes are observed in *sirayama*.

Angagourava- heaviness is due to interrupted blood flow. The interruption builds up extrafluid in the tissue there by causing evident symptom heaviness.

Roopa^{25,26}

The appearance of prodromal features in the *roopa* stage certainly has got role in decision of prognosis of disease. In shotha the prodromal features like *utseda*, *ushmata*, and *angagourava* are going to be well appreciated in *roopa avastha*. Other symptoms are as follows:

Anavasthitatva-normally blood is carried through veins towards the heart that is away from the lower limb. If pumping mechanism of heart is weak or if valves in veins of lower limb won't close properly, excess of blood pools and swelling starts from the lower parts of the body. The swelling is seen in de-

pendent part of the body that is towards gravity. It produces stretched shiny skin thus uncertainty regarding the shotha observed.

Siratanutva- if valves do not work properly, they allow blood to back up in to the vein. The veins swell from the blood which gets collected there by resulting in loosing of elasticity, veins stretches becomes longer and wider. Any vein in the body can become varicose. All these changes represent *siratanutvaa*.

Vivarnata- in localised oedema pigmentation and discolouration is observed due to venous insufficiency. Here *vivarnata* is a feature of *shotha*.

Kaphaja shotha²⁷ and Renal Oedema

The renal disease includes nephrotic syndrome, glomerular nephritis or nephritic syndrome. Renal failure condition produces oedema in particular stage of the disease, this oedema can be taken as *kaphaja shotha*. Let's see the symptoms of *kaphaja shotha* with that of renal oedema.

Mandansari, Kruchra uttana prashama- *kaphaja shotha* takes longer time to occur, and its cure also takes longer time. CKD has 5 stages depending upon the GFR. It is observed that fluid retention which leads to oedema starts at stage 3 where mild to moderate or moderate to severe loss of kidney function is seen. As such there is no cure for CKD but treatment can delay the progression of the disease. Depending on the presenting stage of the disease and slow onset of treatment it can consider under *Kaphaja Shotha*.

Ratribali- Plenty of explanation available saying that advancement of the day will worsen the oedema. More over available references say that nephrotic syndrome in children will have the peri-orbital swelling which is recognised in the early morning hours.

Nipidito na- Takes longer time to fill. Water electrolyte imbalance manifest clinically in CKD stages 4-5. Leading to decrease in the GFR leading to sodium and fluid retention. Fluid moves in to the extravascular spaces due to increased hydrostatic pressure causing pitting oedema in lower extremities. Fluid movement could also be due to hypoalbuminemia leading to low oncotic pressure.

Varnena upalakshita roga- Paleness of the skin. Production of RBC's is hampered, because kidney pro-

duces erythropoietin which helps in production of RBC in bone marrow there by leading to oedema. This feature is well recognised over the skin.

Snigdha- In oedema there is stretching or sliminess of skin mostly due to the trapped excessive fluid.

Arochaka- CKD has adverse effect on digestive function, dysmotility, abnormal secretion and absorption. Anorexia is mainly related to accumulation of unidentified anorexigenic compounds, inflammatory cytokines and alteration in appetite regulation such as amino acids imbalance, which increases the transport of tryptophan across the blood brain barrier. This creates hyperserotonergic state that is prone to low appetite understood as *arochaka*.

Praseka, chardi- High concentration of urea leads to nausea and vomiting. In CKD there is inadequate removal of toxic organic metabolites like urea such as toxins from vascular bed in to urine, leading to *Praseka* and *chardi*

Gandakshikoota shotha- In kidney disease there will be increased intravascular volume and decreased GFR. The fluid tends to collect in loose areolar or ocular tissue that is periorbital region. This can be understood as *gandakshikoota shotha*.

Urashotha-Cardiovascular disease is the leading cause for mortality and morbidity of patients with CKD. The abnormal cardiac function secondary to myocardial ischemic disease or left ventricular hypertrophy along with salt and water retention results in CHF or pulmonary oedema.

Anidra-Sleeplessness. Elevation of plasma level orexin (a neuropeptide that promotes wakefulness) and systemic inflammation may also contribute to poor sleep. Sleep disorders are common in end stage of renal disease.

Atisara- In small intestine abnormal motility and bacterial over growth are common in patients with chronic renal failure. This produces GI symptoms-disturbed intestinal motility leads to diarrhoea.

Fatigue- Persistent fatigue can be one of the most debilitating symptoms of CKD. It is untreated or unreported in stage 3 and 4.

Sheeta jwara- Fever is common problem in CKD due to underlying infection related to inadequate calorie and protein intake and DM.

Shukla agraromata- Vitamin deficiency, Zn, Ca, Vit B deficiency are observed in CKD. Grey discoloration due to haemosiderin deposition is observed due to kidney failure. Not only that thinning of hairs also be seen.

Sheeta dweshi-In *kaphaja shotha* there is intolerance to cold. In renal cell carcinoma cold intolerance symptom is mentioned. Not only that, Anaemia is common in CKF because of decreased Hb%. The patient will be having more aversion to cold.

Kandu -Uremic pruritis is a condition in which patient is presented with chronic itching. This occurs in patients with end stage renal disease. It may be triggered by involvement of calcium, phosphorous and parathyroid hormone metabolism. Uremic xerosis which refers to rough and scaly skin influences uremic prurities by reducing threshold for itch.

Agni sada - In CKD gastric acid secretions is decreased. Hence gastric dysarrhythmias and delayed gastric emptying may also be seen.

Swapna- Uremic neuropathy is distal sensory motor polyneuropathy caused by uremic toxins in CKD. Tingling or pricking sensation parasympathetic weakness and atrophy will follow the sensory symptoms.

CONCLUSION

Shotha is an outcome of *marmabhighathakara bhava, dosha utkleshakara bhavas* or as *nidanartakaras*. Based on the endogenous or exogenous origin , approach to the *Shotha* varies. The symptoms like *ura ganda akshi koota shotha*, pitting oedema, increases during night time, difficulty to cure of *kaphaja shotha* are appreciated in renal oedema. The salt restriction mentioned under dietary factors of renal oedema is convincible in the context of *shotha*.The spectrum of renal disorders induced renal oedema, Probably this can be understood under the light of *kaphaja shotha*.

REFERENCES

1. Shabdakalpadruma, Raja Radhakanta Deva, Shabdakalpadruma Vol-5, Published by Nag Sharan Singh, Nag Publishers, 11-A/U.A. Jawahar nagar, Delhi-7, 1987. Pp-555, Pg-140
2. Comprehensive Kayachikitsa and Principles of Ayurveda, by Dr.Mahesh Udupa.H, 1st Edition, Bangalore, M/S Laveena Publications Basaveshvara nagar, 2005. Pp-1528, Pg-1049.
3. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Edition, Chaukambha Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-483
4. Dorland, Dorlands pocket medical dictionary, 25th Edition, Oxford and I.B.H Publishers New Delhi 1995. Pp-904, Pg-269.
5. Shabdakalpadruma, Raja Radhakanta Deva, Shabdakalpadruma Vol-5, Published by Nag Sharan Singh, Nag Publishers, 11-A/U.A. Jawahar nagar, Delhi-7, 1987. Pp-555, Pg-141
6. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Edition, Chaukambha Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-37
7. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Edition, Chaukambha Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-106
8. Vagbhata, Ashtanga Hridayam, with Arunadatta & Hemadri Chikitsasthana, Edited by Shastri Harisadashiv, Published by Chaukamba Surabharati Prakashana,U.P;2007 Pp-956 ,Pg-215
9. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Edition, Chaukambha Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-79
10. Vagbhatacharya, Ashtanga Hridayam with Sarvangasundari Commentary of Arunadatta and Ayurvedarasayana of Hemadri, Edited by Bhishagacharya Harishastri Paradakara vaidya, 9th Edition, Chaukambha Orientalia,Varanasi, 2002. Pp-1032, Pg-56
11. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Edition, Chaukambha Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-155
12. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Edition, Chaukambha Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-154
13. Harsha Mohan, Textbook of Pathology, 5th Edition, Jaypee Brothers Medical Publisher, New Delhi, 2005. Pp-977, Pg-96.
14. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Edition, Chaukambha Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-107, 483.
15. Sushruta, Sushruta Samhita, with Nibandha Sangraha commentary of Dalhanacharya with Nyayachandrika of Gayadasacharya; Chikitsasthana, Edited by Acharya Yadavji Trikamji-,9th edition. Published by Chaukamba Sanskrit Samsthana, Varanasi, U.P;2002.Pp-823,Pg-485
16. Vriddha Jivaka, Kashyapa Samhita, Revised by Vatsya, Sanskrit introduction by Pandit Hemaraja Sharma, with Vidyotini Hindi Commentary by Shri Sayapala Bhishagacharya, 10th Edition, Chaukambha Sanskrit Sansthan, Varanasi, 2005. Pp-364, Pg-340
17. Vriddha Vagbhata, Ashtanga Sangraha, with hindi commentary by Kaviraj Atrideva Gupta, Vol-1, Krishnadas Academy Oriental Publisher, Varanasi, 1993. Pp-408, Pg-392
18. Bhavamishra ,Bhavaprakasha Samhita, Edited with Viyotini hindi commentary by Bhishagratna Pandit Shri Bhrama Shankara Mishra, Vol-2, 8th Edition, Chaukambha Publication, Varanasi, 2003, Pp-836, Pg-427.
19. Madhavakara.Madhavanidanam(Roga Vinichaya with Madhukosha commentary by Vijayarakshita and Shrikantadatta:2nd Edition.Vol-2.Edited by Tripathi Brahmananda, Chaukamba Surabharati Prakashana, Varanasi, U.P;1998; Pp-619,Pg-58,59.
20. Vangasena, Vangasena Samhita or Chikitsa sara Sangraha, English translation by Dr.Nirmala Saxena, Vol-1, 1st Edition, Chaukambha Sanskrit Series, Varanasi, 2004. Pp-669, Pg-622
21. Anthrux Gyton, Reind John, E.Hall, Textbook of Medical Physiology, 9th Edition, Prism book PVT LTD, Bangalore, 1996. Pp-1148, Pg-308.

22. Sushruta, Sushruta Samhita, with Nibandha Sangraha commentary of Dalhanacharya with Nyayachandrika of Gayadasacharya; Chikitsasthana, Edited by Acharya Yadavji Trikamji, 9th edition. Published by Chaukhamba Sanskrit Samsthana, Varanasi, U.P.; 2002. Pp-823, Pg-252
23. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Chaukhamba Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-516, 626
24. Sushruta, Sushruta Samhita, with Nibandha Sangraha commentary of Dalhanacharya with Nyayachandrika of Gayadasacharya; Chikitsasthana, Edited by Acharya Yadavji Trikamji, 9th edition. Published by Chaukhamba Sanskrit Samsthana, Varanasi, U.P.; 2002. Pp-823, Pg-68
25. Vagbhatacharya, Ashtanghrudayam with Sarvangasundari commentary of Arunadatta and Ayurvedarasayana of Hemadri collated by Late Dr. Anna Moreshwara Kunte and Ramachandra Shastri Navare, Edited by Bhashagacharya Harishastri Paradakara Vaidya, 9th Edition, Chaukhamba Orientalia, Varanasi, 2002. Pp-1032, Pg-183
26. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Chaukhamba Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-515, 616
27. Agnivesha, Charaka Samhita. Reducted by Charaka and Drudhabala with Ayurveda Deepika commentary by Yadavaji Trikamji acharya 5th Chaukhamba Sanskrit Samsthana, Varanasi, 2001. Pp-738, Pg-106

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