

**A DETAIL STUDY OF AYURVED CONCEPT OF VRUKKA AND ITS APPLIED ANATOMY****Dr. Pooja Tiwari\*<sup>1</sup> and Dr. Dinesh Choudhari<sup>2</sup>**<sup>1</sup>M.D.Scholar, <sup>2</sup>Reader,

Department of Rachna Sharir, Rani Dullaiya Smriti Ayurved P.G. Mahavidyalaya Evam Chikitsalaya, Bhopal M.P.

**\*Corresponding Author: Dr. Pooja Tiwari**

M.D.Scholar, Department of Rachna Sharir, Rani Dullaiya Smriti Ayurved P.G. Mahavidyalaya Evam Chikitsalaya, Bhopal M.P.

Article Received on 13/09/2018

Article Revised on 04/10/2018

Article Accepted on 25/10/2018

**ABSTRACT**

Ayurveda is the oldest surviving complete medical system in the world. Human body through dissection which forms the suitable essential basics and set a strong base for further medical knowledge. In Ayurveda Mutravaha Sansthan is: In Ayurveda various concepts are regarding mutravaha sansthan, some where it is little head to understand because the structures which consist of in it are little confusing to create co-relation with modern parameters. Here we tried to give easy way to understand about "Vrukka at all the aspect because so many things needs to be understand at the specifically so that in the future, it will helpful for the students to understand the Rachnatmaka presentation (concept) of Vrukka.

**KEYWORDS:** Mutravaha Sansthans, Vrukka, Srotas, Rakt, Meda, Kosthang, Kidney, Nirukti, applied anatomy etc.

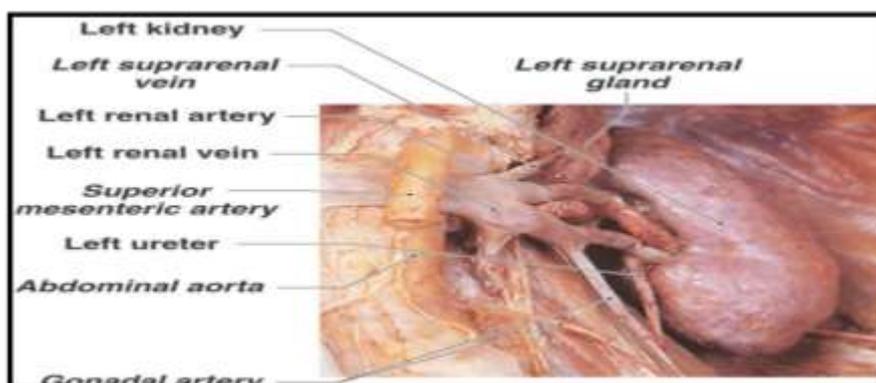
**INTRODUCTION**

Ayurveda is the oldest surviving complete medical system in the world. The main sources of knowledge in the field of Ayurveda thus remain the Vedas, the divine books of knowledge. Acharya Sushruta stated that characters while moving in the body normal Vayu maintains the equilibrium of Dosa, Dhatu and Agni receives the objects of the sense organs and initiates the functions.

- Sharir Rachna is segmentation of Ayurveda which exclusively deals with the study of human body through dissection which forms the suitable essential basics and set a strong base for further medical knowledge. Vrikka or Vrukka are the derived of the root "वृक्कादाने" meaning to take sushruta has clearly mention about the vrukka. He also mentioned

that are made out of the essence of blood and fat related to medovwah srotas.

- Anatomical situation of Vrukka described by Acharya Charak by among in 15 kosthang.
- According to Acharya Charak kosthang having hollowspace organs having formation and purification soluble, insoluble dietantric with help up their own secretions. Hence including all kosthangs vrikka is most important organs upward body for formation excretion of urine as well as purification of blood.
- He also mention that vrukkas are the root of fat carrying duct. According to Ashathang samgraha, kashap samahita and bhel samahita vrukka is a kosthang.



**AIM AND OBJECTIVES**

1. Conceptual study of Vrukka.
2. Upayojita sharir of Vrukka.
3. Co-relation of Ayurvedic Concept of Vrukka and Modern Concept of kidney

**MATERIAL AND METHOD****Nirukti****“वर्षति इति वृक्क” (अमरकोष)**

The word derived from the word “वृष सेचने” which means Irrigation. “बुक” word is also used for vrukka (अमरकोष).

**Utapatti****“रक्त मेदः प्रसादात् वृक्को” (सु० शा० ४/३०)**

- ▶ According to Sushruta development of vrukka occurs from parasad bhag of Rakta and Meda.
- ▶ Charak has counted vrukka under Matrāja Bhava.
- **Modern point of view-**
- ✓ Secretory Part- Nephrogenic cord(Metanephron).

- ✓ Metanephron Forms- Metanephric blastema.
- ✓ Collecting Part- Uretic bud arise from the lower part of Mesonephric duct.
- ✓ Nutrition- Dorsal Aorta.

**Situations**

“वृक्को मास पिण्ड द्वयम् एको वामपापार्श्व स्थितः ।  
द्वितीयो दक्षिण पार्श्व स्थितः”

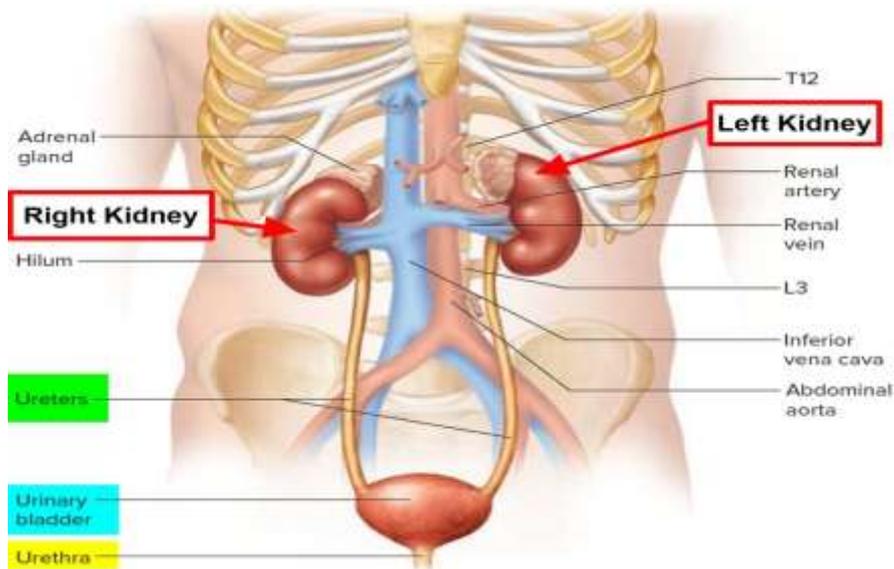
(डल्हण सु० नि० ४/३०)

- ▶ According to commentar Dalhana Vrukka look like maspindwat in 2 numbers.
- ▶ 1<sup>st</sup> one is situated in left lateral quadrum and 2<sup>nd</sup> one is in right lateral quadrum.

**Modern point of view-**Kidney is a Retroperitoneal organ. Situated on the posterior abdominal wall in each of the vertebral column between T12 to L3 vertebrae.

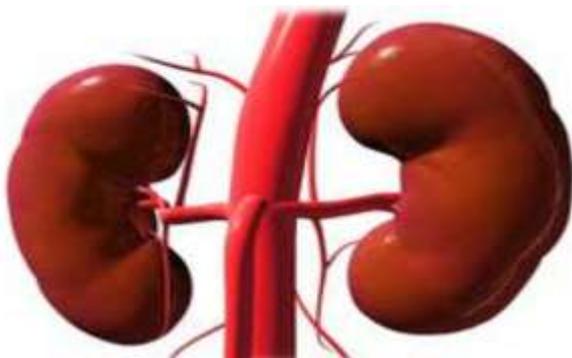
**Shape****“वृक्कौ कुक्षि गोलकौ”**

(डल्हण सु० शा० ४/३०)



As per similarity vrukka look like round nodular shape.

**Modern point of view-** Bean shaped.

**Relation****1. Srotas**

- ▶ According to Acharya Sushruta and Acharya Charak both they have consider Vrikka as a originate of medovah Srotas.

“मेदवहे द्वे, तयोर्मूलं कटी वृक्कौ च” (सु० शा० ९/)

“मेदोवहानां स्रोतसां वृक्कौ मूलं वपावहनं च”

(च० वि० ५/८)

**Functions**

“वृक्कौ पुष्टिकरौ प्रकतौ जठरस्थस्य मेदसः”

(शा० स० ५/८४)

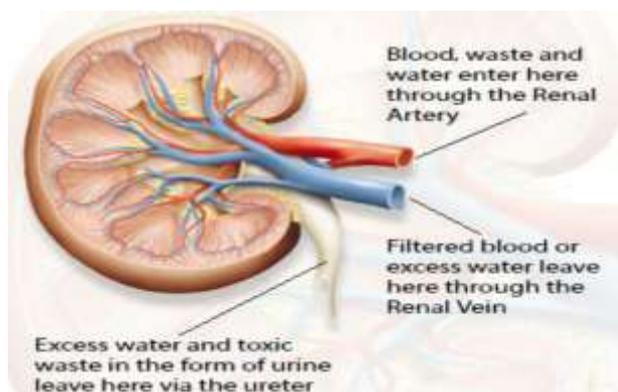
- ▶ Due to this particularly nourishment of meda dhatu or completed as such adipose tissue formation.

- ▶ In routine life formation and excretion of urine depend on daily water intake capacity, if water intake is less than 1 Ltr/day, its means toxicity remains under in body that makes medodhatu dusti and generate medorog.

#### According to modern point of view

- Maintaining overall fluid balance.
- Regulating and filtering minerals from blood.
- Filtering waste materials from food, medications and toxic substances.

Creating hormones that help produce red blood cells, promote bone health and regulate blood pressure



#### Coverings

1. Fibrous capsule
2. Perirenal fat
3. Renal fascia
4. Pararenal fat.

#### Uppayojit Sharir of Vrukka-

“पुटि” – Cyst

“विद्रधि” – Abscess

“वृक्काश्मरी – Renal Calculus

#### DISCUSSION

##### On the basis of Rachna

- ▶ According to Sushruta development of vrukka occurs from parasad bhag of Rakta and Meda.
- ✓ Secretory Part- Nephrogenic cord(Metanephron).
- ✓ Metanephron Forms- Metanephric blaste
- ▶ 1<sup>st</sup> one is situated in left lateral quadrum and 2<sup>nd</sup> one is in right lateral quadrum.
- ▶ Retro Pritoneal organ.
- ▶ Situated on the posterium abdominal wall.
- ▶ Situated at the level of vertebra T12-L3.
- ▶ 2 in number, Round nodular shape, Bean Shaped, Tilkalak, Reddish Brown.

##### On the basis of kriya sharir

- ▶ Ayurvedic physiology encompasses the phenomena of urine formation right from the process of digestion of food and its absorption, especially absorption of water (precursor of urine) from the Pakwashaya i.e. the Colon, up to the constant micro filtration of urine from blood through the Mutravaha Srotas i.e. Nephrons, leading further down to its collection in Basti i.e. urinary bladder through the Mutravahi Dwe i.e. the two ureters and micturition through Mutra- Praseka i.e. urethra

##### Pathologically variant of urinary disfunctioning in text of Ayurveda include

- ▶ Uropatheis, Urolithiasis, Oligoureas, Anureas the different clinical entities described under different categories in ayurveda are procured below with nearest modern co-relations which exhibit a high degree of clinical association.
- ▶ These are the tabulated channel of kidney which have a clay pot like globular structure on their most proximal end. The process of ‘Nisyandana’ or filtration takes place here similar to as the clay pot mechanism explained in Ayurveda.
- ▶ On review of Brihatraye literate, it is clear that location and external appearance of vrukka exactly match with Kidney.
- ▶ Mutrasada- Oliguric Renal failure.
- ▶ Mutra Kshaya- Anuric Renal failure.

#### Co- relation table at the ayurveda and modern parameters of Vrukka

Points	Ayurvedic view	Modern view
Utapatti	Matraj bhav Driven from the Rakta and Med	Secretory-Nephrogmic cord Collecting part- Uretic bud
Sankhya	2	2
Situation	Vaam and daksin vaam parshsawa	Lumber region, At the level of T12-L3
Relation with Srotas	Medovaha	Fat
Shape	Kuchhistha Golko	Bean
Upayojit Sharir	Puti	Renal Cyst
	Ashmari	Renal Calculus
	Vidradhi	Renal Abscess
	Vrukka arbudh	Renal Tumour
	Vrukkashoth	Nephritis
Weight	-	135-150gm.
Diameter	-	11x6x3cm.

**CONCLUSION**

- Overall study of the Vrukka is concluded in this way that in Ayurveda vrukka is considered mainly in the medovaha srotas because it is mainly contributed for the deposition of fat. So it is basically mentioned in medovaha srotas, but in modern science it is more appropriate and resembles with the urinary system, like
- ▶ It's shape- bean shaped which resembles the कुक्षि गोलकौ
- ▶ It's situated- pelvic cavity ()

Formation of fat and urine (पुष्टिकरौ प्रकृतौ जठरस्थस्य मेदसः)

- So overall these some points shows that the vrukka/kidney anatomically is the same organ but functionally it is more as urinary organ.
- It mainly give its contribution for formation of urine and its secretion.
- On the point of its applied/Uppayojita Sharir said that so many disease occurred in the kidney like Renal Stones. Nephritis and many more. These all hampered the urinary system, so it has to be said that anatomically Vrukka is more relevant to the kidney but functionally it defines the Ayurveda concept.

**REFERENCES**

1. Hargobind Shastri, Amarkosha of Amarsingh, Edn 2nd, Chaukhambha Sanskrit Sansthan, Varanasi, 1982, 243.
2. Sushruta Samhita, Nibandhasamgraha commentary of Dalhana, Nyayachandrika commentary of Gayadasa, edited by Yadavji Trikamjee Acharya and Narayan Ram Acharya, Chaukhamba Orientalia, Varanasi, Reprint, 2009; 386.
3. Shukl V, Tripathi R D, Charak Samhita of Agnivesha Edn 2, Part I, Chaukhambha Sanskrit Pratishthan, Varanasi, 2000; 766.
4. Ambikaduttshahtri, Susruta Samhita of Maharishi Sushruta, Sharirsthan, Edn 12, Part-I, Chaukhambha Sanskrit Sansthan, Varanasi, 2001; 41.
5. Shrikantha Murthy KR. Ashtang Samgrah of Vagbhata. Vol. II. Edi. 4th. Chaukhamba Orientalia, Varanasi, 2003; 65.
6. Krishna Garg. BD Chaurasia's Human Anatomy. Reprint Edi. 5th. CBS publishers & Distributors Pvt Ltd. New Delhi, 2012; 377.
7. Sushruta Samhita, Nibandhasamgraha commentary of Dalhana, Nyayachandrika commentary of Gayadasa, edited by Yadavji Trikamjee Acharya and Narayan Ram Acharya, Chaukhamba Orientalia, Varanasi, Reprint, 2009; 303.
8. Sushruta Samhita, Nibandhasamgraha commentary of Dalhana, Nyayachandrika commentary of Gayadasa, edited by Yadavji Trikamjee Acharya and Narayan Ram Acharya, Chaukhamba Orientalia, Varanasi, Reprint, 2009; 358.
9. Ambikaduttshahtri, Susruta Samhita of Maharishi Sushruta, Sharirsthan, Edn 12, Part-I, Chaukhambha Sanskrit Sansthan, Varanasi, 2001; 72.
10. Shastri Durgadutta, Sharangdhara Samhita, Chaukhambha Vidyabhawan, Varanasi, Reprint, 2002; 68.
11. Standring S. Grey's Anatomy. Edi. 40th. Elsevier, 2008; 1245.