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Review Article

DISCUSSION AND POSSIBLE INTERPRETATIONS OF THERAPEUTIC PROPERTIES OF ASHTA MUTRA (URINES), MENTIONED IN AYURVEDA

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ABSTRACT

Ayurveda deals with holistic approach for well-being of mankind. It advocates that according to origin, different *Jangama*, *Audbhid* & *Parthiva dravyas* (substances) are to be utilized for maintenance of health and getting cure when diseased. During the classification of *dravyas*, according to their *yonis* (source of origin), *Jangama dravya* has been mentioned first and then other two. These points create newer thoughts for human being in the chronological development of human races. *Mutra* is one of the important *Jangama dravya* which is not only used for purification of various drugs but also used in treatment of various diseases. In *Samhita granthas*, among many liquid substances (*Drava dravyas*), *Mutra varga* has been discussed with great importance and significance in purification, preparation & application as medicament. More specifically eight types of *mutras* (urine) have been enumerated with their specific qualities and application. Among these 8 types of *mutras*, every *mutra* is described with specific therapeutic indications. *Avi- mutra* is indicated in *kasa*, *plihodara*, *shvasa*, *shosha* and *varcho-graha*, *Aja- mutra* is indicated in *shvasa*, *kasa*, *shopha*, *kamala* and *pandu*, *Mahisha-mutra* is indicated to cure *Arshas*, *shopha*, *Udara roga* and *Udara shula*, *Kushtha*, *Kushtha*, *Prameha*, *Anaha*, *Gulma* and *Pandu*, *Hasti-mutra* is useful against bacterial infection or worm infestation and *kushtha* (obstinate skin diseases including leprosy). It is specifically useful in cases of retention of faeces and urine, poisoning, diseases due to *kapha* and piles. Camel's urine alleviates edema, *kushtha*, *udararoga*, insanity, *vata*, worm infestation and piles, Horse's urine is pungent, sharp and hot, pacifies *kapha*, stimulates digestive power, alleviates disorders of *vata* and *manas* and is useful in worm and ring worm infestation, Ass urine is sharp, alleviates artificial poison and mental disorders, stimulates digestive power, pacifies *vata* and *kapha* and is anthelmintic and Cow urine is slightly sweet, somewhat alleviates *doshas*, destroys *krimi* and *kushtha*, removes itching and if taken internally, is beneficial in *udara* caused by *tridosha*.

These animals are commonly domestic in nature and continued to be used by human being as part of their socio-economic and religious life down the ages in the society. Here in this article an attempt has been made to establish possible co-relation and interpretations of properties of different animal's urine and their therapeutic indications.

Keywords: *Ayurveda*, *Ashta mutra*, *Go mutra*, *Mahisha mutra*, *Aja mutra*, *Avi mutra*, *Ashwa mutra*, *Khara mutra*, *Ushtra mutra*, *Hasti mutra*, *Discussion*, *Therapeutic use* etc.

INTRODUCTION

Ayurveda, the science of life covers a wide range of subjects and issues of living beings in relation to total approaches of individual development and health care. Different *Ayurvedic* literature preaches wide and in depth knowledge of ideal living including promotive, preventive and curative aspect of health sciences. In post-independent India new approaches and active initiation have been undertaken to explore different positive dimensions of *Ayurvedic* science. Different scientific approaches have been incorporated for revalidation of

different ancient principles and concepts of *ayurveda* as well as to find out newer medical hopes and techniques for mankind. *Samhitas* are base and treasure house of *Ayurveda*. *Brihat-trayi* reveals almost all essential knowledge along with concepts which governs the science of life, i.e. *Ayurveda*. In general, *Samhita granthas* and particularly *Sutra* literatures reveal facts in very concise form, which have ever ending scope for more & more expression of meaning and generation of further knowledge. *Ayurveda* deals with holistic approach for well-being of mankind. It advocates that according to origin, different *Jangama*, *Audbhid* & *Parthiva dravyas*

(substances) are to be utilized for maintenance of health and getting cure when diseased. During the classification of *dravyas* according to *yonis*, *Jangama dravya* has been mentioned first, then other two¹. These points create newer thoughts for human being in the chronological development of human races. *Mutra* is one of the important *Jangama dravya* which is not only used for purification of various drugs but also used in treatment of various diseases. *Acharya Charaka* has described above *Ashta mutras* in very first chapter of *Sutra-sthana*² which is concerned with the facts and principles, essential for acquiring a disease free longer life (*Dirghanjivitiya-adhyaya*). This fact also reveals the importance of *Mutra* in *Ayurveda*³.

In *Samhita granthas*, among many liquid substances (*Drava drvyas*), *Mutra varga* has been discussed with great importance and significance in purification, preparation & application as medicament. More specifically eight types of *mutras* (urine) have been enumerated with their specific qualities and application. These animals are commonly domestic in nature and continued to be used by human being as part of their socio-economic and religious life down the ages in the society. Here in this article an attempt has been made to establish possible co-relation and interpretations of properties of different animal's urine and their therapeutic indications.

a- Discussion about therapeutic properties of *Avi- mutra-*

Avi- mutra is indicated in *kasa*, *plihodara*, *shvasa*, *shosha* and *varcho-graha* as is mentioned in *samhitas-*

- कासप्लीहोदरश्वासशोषवर्चोग्रहे हितम् | सक्षारं तिक्तकटुकमुष्णं वातघ्नमाविकम् || Su.S.Su45/224||

In *shvasa* and *kasa*, the principle *doshas* involved are *vata*, *kapha* or both together, The *Avi-mutra* has *katu* and *Tikta rasa* which is responsible for *kapha-shamana* and at the same time it also posses *vataghna* property. *Avi- mutra* is *ushna* in nature which nullifies the vitiation of both *vata* and *kapha*. Thus it act on causative *doshas* which is *samavayi karana* for production *shvasa* and *kasa* disease, thus *Avi- mutra* checks the disease at it its first step and prevents from further progression.

- Avi- mutra* also has *kshara* like properties, proved by mean pH-8.5 observed experimentally, which by its *ksharana guna* removes the *sleshma* deposited in various parts of *prana vaha srotas* thus provides relief from symptoms like *shvasa- kriccha* etc.

- In *Plihodara*, the line of treatment mentioned as-
.....सगुडाभयां वाऽपि क्षारारिष्टगणांस्तथा || (C.S. Ci.13/78)

Thus *Avi- mutra* having alkaline property is beneficial in *plihodara*.

- In pathogenesis of *Shosha*, the *rasavahi srotasa* are obstructed by *kapha* so subsequent *dhatu*s are not properly nourished leading to *shosha*, by internal application of *Avi- mutra*, it clears the *rasavahi srotasa* by *ksharana* and *kapha shamaaka* property, leading proper nourishment of all the seven *dhatu*s and consequently cures *shosha*.
- In *Varcho-graha* (*constipation*) the predominant *dosha* responsible is *vata* thus by its *ushna* and *vataghna*

properties it alleviates the vitiated *vata* and thus is beneficial by in *varcho-graha*.

b- Discussion about therapeutic properties of *Aja- mutra*

- कासश्वासपहं शोफकामलापाण्डुरोगनुत् | कटुतिक्तान्वितं छागमीषन्मारुतकोपनम् || Su.S. Su45/223||
- आजं कषायमधुरं पथ्यं दोषान्निहन्ति च || C.S.Su.1/100b||

Aja- mutra is indicated in *shvasa*, *kasa*, *shopha*, *kamala* and *pandu*.

- Again the predominant *dosha* involved in pathogenesis of *Shvasa and Kasa* is *shleshma* as preach our *samhitas-*
कासिने छर्दनं दद्यात् स्वरभङ्गे च बुद्धिमान् | वातश्लेष्महरैर्युक्तं तमके तु विरेचनम् || (C.S. Ci. 17/121)

This *shleshma* is corrected by *katu* and *tikta rasa* of *Aja-mutra*. It's alkaline pH =7.5 as observed by urine examination mentioned earlier by *ksharana* of *kapha*, obstructing the lumen of tracheo-bronchial tree at various levels, also contributes in removal of vitiated *kapha dosha*. Here it is worth to be noted that all urines have general *vata-kapha hara* property. Further *Aja mutra* should be used after processed with various *vata kapha hara* drugs. This supports the view of our *acharyas* as preached in *samhita -*

तैरस्य ग्रथितः श्लेष्मा स्रोतस्वभिविलीयते | खानि मार्दवमायान्ति ततो वातानुलोमता || (C.S.Ci.17/72)

- Further the predominant *dosha* in *Shopha* is also *kapha* as mentioned in *samhitas-*
शूलं नर्तनिलाद्वाहः पित्ताच्छोफः कफोदयात् | रागो रक्ताच्च पाकः स्यादतो दोषैः सशोणितैः || (A.H.Su. 29/6b, 7a)

So by *kapha shamaka* property *aja- mutra* is indicated in *shopha*.

- In *Pandu* and *Kamala*, the predominant *dosha* involved in pathogenesis is *pitta*, as mentioned in *samhita-*
दोषाः पित्तप्रधानस्तु यस्य कुप्यन्ति धातुषु | शैथिल्यं तस्य धातूनां गौरवं च उपजायते || (C.S.Ci.15/4)

प्रदूष्य कफवातासृक्त्वङ्मांसानि करोति तत् | पाण्डुहारिद्रहरितान् वर्णान् बहुविधांस्त्वचि || (C.S.Ci.15/11)

According to *Acharya Charaka* the *rasa* present in *Aja mutra* are *kashaya* and *madhura* which have *pittashamaka* property thus it corrects the vitiated *pitta* and consequently cures *pandu*. It also corrects the vitiated *vata* and *kapha doshas*.

Also *Aja mutra* is *pathya*. Means which is not harmful for body channels as mentioned in *samhita -*

पथोऽनपेतं पथ्यं यच्चोक्तः मनसः प्रियम् | यच्चाप्रियमपथ्यं च नियतं तन्न लक्षयेत् || (C.S.Su.25/45)

Also -
पथ्ये सति गतार्तस्य किमौषध निषेवणैः | पथ्येऽसति गतार्तस्य किमौषध निषेवणैः || (वेद्यकजीवन)

So if a person practice *aja mutra* in daily routine, he will not be supposed to suffer from *pandu* and *kamala*, as it cleanses the body channels and avoid the condition of *khavaigunya*, the predisposing condition for *sthanasanshraya*.

- In *kamala*, especially *shakhashrita*, the passage of *pitta* from *shakha* to *koshtha* is obstructed by *sleshma*, here *Aja mutra* hits this *shleshma*, and causes the proper passage and elimination of *pitta* through *shakrita* imparting the normal color to the stool which indicates sufficiency and suitability of the treatment of *kamla*. Being *pathya*, means beneficial for body channels, *Aja mutra* is very much

beneficial in *kamla*. Thus it supports the *Acharya charaka's* view about the line of treatment of *kamala-tilapichinibam* यस्तु वर्धः सृजति कामली । श्लेष्मणा रुद्धमार्गा तत् पित्तं कफहरैर्जयेत् (C.S.Ci.16/124b, 125a)

कटुतीक्ष्णलवणैरभृशाम्लैश्चाप्युपक्रमः ॥ आ पित्त रागाच्छकृतो वायोश्चा प्रशमाद्भवेत् | (C.S.Ci.16/130b, 131a)

c- Discussion about therapeutic properties of *Mahisha - mutra* -

Mahisha - mutra is indicated to cure *Arshas, shophya, Udara roga* and *Udara shula, Kustha, Prameha, Anaha, Gulma* and *Pandu*. It is having *sara guna* and alkaline in nature also proved by urine examination (pH =8.5)

अर्शःशोफोदरघ्नं तु सक्षारं माहिषं सरम् | (C.S.Su 1/102a)

दुर्नामोदरशूलेषु कुष्ठमेहाविशुद्धिषु | आनाहशोफगुल्मेषु पाण्डुरोगे च माहिषम् ||Su.S.Su45/222||

- Here *Arshas, Udara roga* and *Gulma* these three diseases are due to decreased digestive fire, as is obvious from description in *samhitas*-

त्रयो विकाराः प्रायेण ये परस्पर हेतवः । अर्शांसि चातिसारश्च ग्रहणीदोष एव च ।

एषामग्निबले हीने वृद्धिवृद्धे परिक्षयः । तस्मादग्निबलं रक्षयमेषु त्रिषु विशेषतः ॥

यद्वायोरानुलोम्याय यदग्निबलवृद्धये । अन्नपानौषधद्रव्यं तत् सेव्यं नित्यमर्शसैः ॥

(C. S. Ci.14/244,245,247)

So being alkaline in nature it increases the digestive fire (आग्नेयौशधिगुणभूमिषुत्त्वात् कटुकस्तीक्ष्णः पाचनो.....(सु. सू. ११/५) and due to *sara guna*, it performs *vatanulomana* (सरोऽनुलोमनः प्रोक्तो.....(सु.स.सू.४६/५२९) thus *mahiOha-mutra* satisfies the principle of treatment of *Arshas*.

- *Udara roga* is also caused by decreased digestive fire as preaches our literatures-

अग्निदोषान्मनुष्याणां रोगसङ्गाः पृथग्विधाः । मलवृद्धया प्रवर्तन्ते विशेषणोदराणि तु ॥

..... | उदराण्युपजायन्ते मन्दाग्निनां विशेषतः ॥

रूध्वा स्वेदाम्बुवाहीनि दोषाः स्रोतांसि संघिताः । प्राणान्निऽपानान् संदूष्य जनयन्त्युदरंनृणाम् ॥

(Ca.S.Ci.13/9, 15, 20)

Again by the virtue of increasing the digestive fire and cleansing the body channels due to alkalinity *mahisha-mutra* is indicated in *Udara roga* treatment.

- Similarly the severity of *gulma* increases with reduced digestive strength of *Jatharagni* and vice-versa as told in our *samhitas*-

मन्देऽग्नौ वर्धते गुल्मो दीप्ते चान्नौ प्रशाम्यति । (C.S.Ci.5/112)

So having the properties of appetizer, *Mahisha-mutra* is suitable to be used to cure *Gulma*.

- In *Shophya*, the responsible essential *dosha* is *kapha* as discussed above, so being alkaline in nature it possesses properties opposite to *kapha* so use of *Mahisha-mutra* in *shophya* is judicial.

d- Discussion about the *Rasa of Mahisha-mutra*-

After scanning of the literature regarding the *Ashta mutra*, it is observed that our *acharyas* preached the *rasa* of almost all the *mutra* among *Ashta mutra* but not clearly that of *Mahisha-mutra*. Here it is point of enthusiasm that *acharya charaka* mentioned the *sakshara* property in *mahisha-mutra*, means it is alkaline so that *rasa* of *kshara* will be that of *Mahisha-mutra*. The *rasa* of *kshara* is combination of five *rasas* including *madhura, lavana, katu, tikta* and *kashaya*. It is devoid of *amla rasa*. In spite of combination of five *rasas, katu* is the principal *rasa* and *lavana* is *anurasa*.

तदनेक रससमुत्पन्नमनेकरसं कटुकलवणभूमिषुम् । (च. सू. २६/८)

कटुकस्त्रत्र भूमिषो लवणोऽनुस्तथा । (सु. सू. ११/२४)

कटुकस्त्रत्र भूमिषु इति तत्र पंचरसे क्षारे कटुकोऽनुस्तः, लवणस्तुभूमिषु इति योज्यं । (उल्लहणः सु. सू. ११/२४)

So being alkaline in nature the buffalo urine can correct all the three *doshas* as per physiological action of *rasas* over *tridosha*. In this way buffalo urine can be applied in those diseases in whose pathogenesis *tridosha* are involved. Along with the *tridoshaghna* action performed due to constitution of *rasa, kshara* is itself *tridoshaghna* as mentioned by *Acharya Sushruta* -

नानौषधि समवायत्वात् त्रिदोषघ्नः ।

(सु. सू. ११/५)

- In *kustha*, the all the three *doshas* are involved in pathogenesis as mentioned in our *samhitas*-

वातादयस्त्रयो दुष्टास्त्वग्रक्तं मांसमम्बु च । दूषयन्ति स कुष्ठानां सप्तको द्रव्य संग्रहः ॥

अतः कुष्ठानि जायन्ते सप्त चैकादशैव च । न चैकदोषजं किञ्चित् कुष्ठं समुपलभ्यते ॥(च.चि. ७/९,१०)

७/९,१०)

सर्वं त्रिदोषजं कुष्ठं(च.चि. ७/३१)

So *Mahisha-mutra* is advised to be used in treatment of *kushtha*. *Kushtha* is type of obstinate skin disease including *kushtha*. *kushthaghna* property is also supported by anti fungal property of buffalo urine, which is observed experimentally, discussed in observation and result portion of thesis. Because cutaneous mycosis is type of skin disorder exhibiting some or more characters of *kushtha*

In *Prameha* chief *dosha* involved in pathogenesis is *Shleshma* specially *bahudravah*, as described in *samhita*-

बहुद्रवः श्लेष्मा दोष विशेषः ॥(च.स.नि.४/६)

बहुद्रवः श्लेष्मा दोषविशेष इति बहुद्रव एव कफो मेहजनको नाल्पद्रव इति । (आ.दी.,

च.स.नि.४/६)

So use of *Mahisha-mutra* in *Prameha* is justified by its *shleshma pratyanka* property as per the facts discussed above.

e- Discussion about therapeutic properties of *Hasti-mutra*

- हास्तिकं लवणं मूत्रं हितं तु क्रिमिकुष्ठिनाम् ॥ प्रशस्तं बद्धविण्मूत्रविषश्लेष्मामयार्शसांम् (C.S.Su.1/102b,103a)

- सतिकं लवणं भेदि वातघ्नं पित्तकोपनम् | तीक्ष्णं क्षारे किलासे च नागं मूत्रं प्रयोजयेत् ॥ (S.S.Su.46/226)|

Urine of elephant is saline. It is useful against bacterial infection or worm infestation and *kushtha* (obstinate skin diseases including leprosy). It is specifically useful in cases of retention of faeces and urine, poisoning, diseases due to *kapha* and piles.

The urine of an elephant has a bitter and saline taste. It is keen and purgative and subdues the *vayu* and enrages the *Pitta*. It is commonly used in the treatment of *kilasa* (leucoderma) and in the preparation of alkalis.

- For the treatment of *krimi*, one of the treatment modality is *praktivighata*. For *praktivighata, shleshma* and *purisha pratyanka chikitsa* (Ca.S.Ni 7/15) is advocated because *kapha* provides favorable medium for worms to grow and nourish. Here by virtue of saline taste (*lavana rasa*), elephant urine thins the *kapha* and also eliminates the worms by its property of *adhahsrams* (to flow downwards) and *marga shodhana* as evident from description in *samhita*-

लवणो रसः पाचनः क्लेदनो दीपनः.....सरो
 ...अधःसंसीकफं विष्यन्दयति, मार्गान्
 विशोधयति(C.S.Su. 26/3)

The removal of worms is also facilitated by the property of being beneficial in constipation and retention of urine.

- The utility of elephant urine in skin disorders including leprosy can be explained due its *krimighna* property because the etiology of *rakataja krimi* and *kushtha* is similar (शोणितजानां तु खलु कुष्ठैः समानं समुत्थानं; (च. नि. ७/११)). These *rakataja krimi* can be co-related bacteria responsible for leprosy and other skin disorders like *kitibha* and *kilasa*. So having antagonistic effect on the *krimi* the elephant urine is *kushthaghna* in nature. It is also evident from significant antimicrobial activity observed experimentally against few grown fungi.

f- Discussion about therapeutic properties of *Ushtra-mutra*-

- सतिक्तं श्वासकासघ्नमशौघं चोष्टमुच्यते|| (C.S.Su.1/103b)||
- शोफकुष्ठोदरोन्मादमारुतक्रिमिनाशनम् | अशौघं कारणं मूत्रं(S.S.Su.45/103b)

Urine of camel is bitter; and it alleviates *shvasa* (dyspnoea), *kasa* (bronchitis) and piles.

Camel's urine alleviates edema, *kushtha*, *udararoga*, insanity, *vata*, worm infestation and piles.

- Here *tikta rasa* is *dipana* and *pachana* property (तिक्तो रसःविषघ्नः कृमिघ्नोदीपनः पाचनःक्लेदमेदोवसाम्ज्जलसीकापूर्यस्वेदमूत्रपुरीषपित्तश्लेष्मोपशोषणो.....। (च.सू.२६/४३)) that accounts for increase in the digestive power which is one of the line of treatment of *udara* and *arsha* as discussed above.
- Another fact that supports the use of camel urine in *Udara roga* that it is *laghu* in nature that is also observed experimentally by its least specific gravity (1.003), increasing the appetite and purification of body channels thus dissociate the pathogenesis of *udara roga*.
- Due to *shleshma upashoshana* property of *tikta rasa* and *mAruta nashana* property of camel urine itself, it is beneficial in *shopha* and *shvasa- kasa* due to the facts discussed above.

g- Discussion about therapeutic properties of *Ashwa-mutra*-

- वाजिनां तिक्तकटुकं कुष्ठव्रणविषापहम् (C.S.Su.1/104a)||
- दीपनं कटु तीक्ष्णोष्णं वातचेतोविकारनुत् | आशं कफहरं मूत्रं कृमिदद्भुषु शस्यते || (S.S.Su.45/225)||

Urine of horse is bitter and pungent; and it cures *kushtha* (obstinate skin diseases including leprosy, ulcers and toxic conditions).

Horse's urine is pungent, sharp and hot, pacifies *kapha*, stimulates digestive power, alleviates disorders of *vata* and mind and is useful in worm and ring worm.

Here by the property of *katu*, (कटुको रसः कृमीन् हिनस्ति, मांसं विलखति, शोणितसंघातं भिनत्ति,.....श्लेष्माणं शमयति.....।। (च.सू.२६/४३)) *tikta rasa* (तिक्तो रसःकृमिघ्नो.....श्लेष्मोपशोषणो.....।।(च.सू.२६/४३)) and *vata kapha hara* property it is advised to be used in the treatment of *krimi* as the *kapha* provide suitable medium for growth of *krimi*.

Also horse's urine is useful in *kushtha* and *dadru* which can be justified on the ground of anti-itching and wound healing properties of *tikta rasa* which is also proved by the antifungal activity against few grown fungi.

Wound healing (*vranaghna*) property is also attributed to *katu rasa* (कटुको रसः.....व्रणानवसादयति.....।।(च.सू.२६/४३)) of horse urine that can be justified by the presence of urea which is commonly recognized as an effective antibacterial, antifungal and antiviral agent. When used on a wound, urea causes an osmotic imbalance that kills the bacteria and fungus, proven by its antifungal activity recorded experimentally.

h- Discussion about therapeutic properties of *Khara-mutra* as preached in *samhitas*-

- खरमूत्रमपस्मारोन्मादग्रहविनाशनम् ||C.S.Su 1/104b||
- गरचेतोविकारघ्नं तीक्ष्णं ग्रहणिरोगनुत् | दीपनं गार्दभं मूत्रं कृमिवातकफापहम् ||S.S.Su.45/227||

Use of ass urine cures epilepsy, insanity and demoniac seizures as preached-

Also, ass urine is sharp, alleviates artificial poison and mental disorders, stimulates digestive power, pacifies *vata* and *kapha* and is anthelmintic.

Therapeutic actions can be attributed due to different properties of ass urine relating the facts discussed above regarding therapeutic actions of different urine.

i- Discussion about therapeutic properties of *Gomutra*-

- गव्यं समधुरं किञ्चिद्दोषघ्नं क्रिमिघ्ननुत् | कण्डू च शमयेत् पीतं सम्यग्दोषदरे हितम् ||(C.S.Su 1/101)||
- गोमूत्रं कटु तीक्ष्णोष्णं सक्षारत्वान् वातलम् | लघ्वग्निदीपनं मेध्यं पित्तलं कफवातनुत् || शूलगुल्मोदशनाहविरेकास्थापनादिषु | मूत्रप्रयोगसाध्येषु गव्यं मूत्रं प्रयोजयेत्|| (S.S.Su 45/220,221)||

Cow urine is slightly sweet, somewhat alleviates *doshas*, destroys *krimi* and *kushtha*, removes itching and if taken internally, is beneficial in *udara* caused by *tridosha*.

Cow's urine is pungent, sharp, hot, does not increase *vAta* because of alkalinity is light, promotes digestive power and intellect, increases *pitta* while decreases *kapha* and *vAta*. In colic, *gulma*, *udararoga*, hardness of bowel, purgatives, non-unctuous enema etc. where urine is indicated, cow's urine should be used.

Cow urine is reported as an excellent germicide and a potent antibiotic. Therefore, cow urine therapy destroys all the pathogenic organisms and if it is taken on a daily basis, it boosts immunity. Some of the diseases that are proven to be cured by cow urine are Cough, Dysmenorrhoea, Migraine or headache, Constipation, Thyroid and Skin diseases like eczema, ringworm, and itching, Acne, Cancer, Heart Diseases, Musculoskeletal Disorders, Male Sexual Disorders, AIDS, Diabetes Mellitus, Blood Disorders, Respiratory Disorders, Gastrointestinal Disorders, Endocrine Disorders, Gynaecological Disorders, Ophthalmic Disorders, Psychiatric Disorders, Urological Disorders, Asthma, Kidney Shrinkage, Hepatic Disorders and Cancer⁴ etc.

Biochemical Properties of Chemical Constituent of Cow Urine⁵: -

Presence of urea, creatinine, *swarna kshar* (aurum hydroxide), carbolic acid, phenols, calcium and manganese has strongly explained for exhibition of antimicrobial and germicidal

properties of cow. On the other hand uric acid's antioxidant property and allantoin correlates with its anticancer effect. Urine consumption improves immunity is due to presence of *swaraea koara* and fastens wound healing process which is due to allantoin. Cardiovascular system is maintained by a number of its attributes as *kallikrein* acts as a vasodilator, the enzyme urokinase is a fibrinolyte, ammonia maintains the structural integrity of blood corpuscles, nitrogen, sulphur, sodium and calcium components act as blood purifiers, while iron and erythropoietin stimulating factor maintain haemoglobin levels. It contains nitrogen in very high concentration which acts as a renal stimulant, whereas uric acid, phosphates and hippuric acid act as diuretic agents. Presence of copper and calcium promote its anti-obesity and skeletal bone health effect. *Aurum hydroxide* and copper act as antidotes for various poisons in the body as certain poisons can be refined and purified if soaked in *gomÚtra* for 3 days. *Guggul (Commiphora mukul)*, *bhalataka (Semecarpus anacardium)*, *loha* (iron) and silver can be purified and aconite (*Aconitum napellus*) detoxified using this cow urine therapy.

Homeostatic Function of Cow urine⁶:-

Apart from curing diseases, cow urine also helps in maintaining the homeostasis of body where it affects certain body functions by lowering cholesterol level, relieving tension, improving memory, enhancing the functioning of liver, slowing the aging process, giving strength to brain, heart and also destroying the toxic effects of medicinal residues in the body. In fact, if cow urine is taken regularly even without having any illness, it keeps our body healthy by boosting immunity, by eliminating toxic substances through generation of antioxidants and scavenging of free radicals. Recent study have proved that cow urine, distillate, re-distillate and residues, all exhibit antioxidant activity and that cow urine could be a potential source of natural antioxidant that could have greater importance as supportive therapy in preventing or slowing oxidative stress related degenerative diseases.

Gomutra therapy provides an especially rich and provocative research topic. The ancient scriptures of *Ayurveda* consider cow urine to be the elixir of life. It is the most effective natural remedy and the safest method of treatment bestowed upon us by nature.

Cow urine based formulations would definitely prove to be a potential medicine which in turn would reduce the pressure on the existing use of chemicals and antibiotics. While this sounds a little unconventional for many, it would be a major step in disease management. Let's hope this urine therapy could open doors for curing wide range of dreadful diseases because as we know it is eco-friendly, economically viable, and easily available in abundance.

In my study it is observed that *Ashta mutra* can be used internally for management of certain disease conditions. These different *mutra* are having different anti-fungal properties which can be correlated with disease alleviation property when applied externally or internally. These different samples of *mutra* contain inorganic substances which are bioactive and capable to explore physiological activity of living body. Undoubtedly different *mutra* as mentioned in *Brihat-trayi* can be recommended for internal as well as external application

for treatments. Their scope may be further justified and recognized by providing clear guidelines of uses. Further study and research in future on this topic will enhance more information and knowledge.

CONCLUSION

Although there is misconception about urine and is commonly believed to be toxic or 'dirty', this is not actually the case. Urine is virtually sterile and nearly odorless when it leaves the body. However, afterward, the microbes contaminate the urine that converts urea into ammonia responsible for distinctive smell of urine. Urea is commonly recognized as an effective antibacterial, antifungal and antiviral agent. When used on a wound, urea causes an osmotic imbalance that kills the bacteria and fungus. Urokinase has fibrinolytic action so useful in cardiac patients having coronary artery disease.

According to ancient Indian medical system in general and *Ayurveda* in particular, it is not necessary to know the name of disease, rather it is necessary to know the attributes of different *doshas* and their state of imbalance behind different diseases. Once the aggravated *dosha* is ascertained, along with along with its site of manifestation, an integral regimen for reducing such complaints or diseases used to be implemented to resume the balance of *tridoshas*. However in order to augment and replenish the best possible state of health for ailing person, *Acharyas*, relied not only food stuffs alone but also employed certain matters, yet have enormous specific action against the disease prevention, health maintenance and longevity enhancement. Animal's urine is one of such substance whose taste, digestibility, metabolism, physiological action and specific medicinal properties were extensively researched by ancient *acharyas* and recommended in alleviating several afflictions of the mankind that has been tried to explain with best possible efforts in present thesis work.

Thus it can be concluded that-

- Concept of urine therapy in *ayurveda* is so scientific.
- Difference in concentration of different physico-chemical constituents of urine samples and antifungal activity between the species of animals recorded, forms the basis of specific therapeutic indication of *Ashta mutras*.
- Although the cow urine is holy, easily accessible and more acceptable in the society but at the same time other animal's urine is also has their own significance. There is need of more interpretations so as to increase the credibility of urine therapy.
- There are a lot of research works, carried out over *gomutra* and also a more no. of references mentioned in *samhitas* than other *mutras*, shows it's superiority among the *mutra varga* as preached in our *samhitas*.

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3. ऊर्ध्वं मूत्राण्यष्टौ निबोध मे । मुख्यानि यानि दिष्टानि सर्वाण्यत्रेयशासने ॥
अविमूत्रमजामूत्रं गोमूत्रं माहिषं च यत् । हस्तिमूत्रमथोष्पूरस्य हयस्य च खरस्य च॥

(च.सू. १/१४,१५)

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