



CONCEPT OF ASHTANGASANGRAHA ON WATER

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ABSTRACT

Water is the basic day to day need of not only the living but also of the non living objects of the world. An individual can easily realize the need of water in his life. If observed, it becomes clear that, the animals, birds and other small and big creatures use water to clean the body and drinks to get relief from thirst. Even the non-living objects in the nature get a new look after rain. The soil cannot grow the crops without water. The plants dry up if water is not got (naturally or artificially). The effect of natural water (rain) can easily be realized even with a simple analytical observation. As the unavoidable daily need water is occupying an important role in health and disease of the living organisms. As a result it is also considered as a matter of scientific study. Till now many studies on composition, properties, uses and effect, different aspects related with pollution, water born diseases, purification of water in small and large scale etc. are conducted and a good number of facts are accepted as scientific. Water is remaining as the friend of the human society from different angles since time immemorial. Observing the effect on daily life it is even considered as Goddess and, in many situations considered as sacred. The enthusiasm on water is not a new phenomena. In the past also there was many questions about water in the minds of the human and to solve these many studies were conducted. Ashtanga Sangraha is an authentic book on ancient Indian health science (Ayurveda). It is trusted to be authored by a famous scholar of 6th century A.D., Bagbhata. Bagbhata is considered to be a scholar who followed, practised and evaluated the concepts of Charaka and Susruta. In Ashtanga Sangraha some very interesting facts on water are incorporated that are considered to have authentic value even now. Hence an effort to discuss on the concept of water as available in Ashtanga Sangraha is considered to be a time tested work.

KEYWORDS : water, unavoidable daily need, Bagbhata, Ashtanga Sangraha

INTRODUCTION:

Ayurveda is agreed to be the science of life the origin of which is not being possible to confirm. Charaka, Susruta, Bagbhata are considered to be the renowned scholars of the system who contributed a lot as the resources of knowledge. Their creations Charaka Samhita, Susruta Samhita and Ashtanga Sangraha/Ashtanga Hridaya are considered as the three pillars of Ayurveda (BRIHATRAYEE) and considered to be the potent and authentic sources of knowledge.

These Samhitas have discussed not only the facts on diseases and their treatment but also the factors that affect the health and well being. Water is such a gift of the nature that cannot be kept aside when the essential needs for life is considered. A vivid discussion on water can be considered to be an ornament of the Ayurvedic classics.

Modern science has been conducting a number of studies and research on water observing its need and effect on human health. Exploration on the composition, character, pollution, purification, relation with disease etc. are the markable fields of the activities of the modern scientists.

Considering the scope of further study and research on the concepts on water and to reduce the expansibility of the article, in the present study, the findings only from Ashtanga Sangraha on water is included. Hope many scientific facts will be reflected by this article for appraisal of the modern scientists.

AIMS AND OBJECTIVES -

The present review work is conducted with the following aims -

- (1) To study the concepts and opinions on water as mentioned in Ashtangasangraha
- (2) To arrange the concepts on the topic as an article
- (3) To discuss the available concepts in Ayurvedic and Modern light with the aim to establish their authenticity and acceptability
- (4) To frame a summary and conclusion
- (5) As a scientific article listing of the references and
- (6) Ultimately, in the form of a scientific article, to send for publication to peer reviewed journal to make it

appraisable for the scientific forum.

MATERIALS AND METHODS -

The study was conducted by following the below mentioned methods -

- (1) Ashtanga Sangraha was studied in detail at Sri Sri College of Ayurvedic Science and Research Hospital, Sri Sri University, Cuttack, Odisha, India
- (2) The facts mentioned in the classic on water was noted
- (3) The findings were arranged in the form of an article
- (4) The facts were discussed with an aim to justify in Ayurvedic and modern light
- (5) A summary followed by conclusion was prepared
- (6) Adding the references the article was sent for publication with the aim to appraise the informations to the scientific forum for further study etc.

OBSERVATION AND RESULT -

The study revealed the following observations -

- (1) In Ashtangasangraha water is discussed in the chapter "DRAVADRAVYAVIJNINIYA" under the heading "Jalavarga" (Category of liquid substances)
- (2) General qualities of water (jalavarga) - helpful for life (Jivana), nutritious (tarpana), homologus for heart (hridya), produces happiness (hladi), increases intelligence (buddhi prabodhana), clear (tanu), has no taste (avyaktarasa), homologus for the mind (mrishtha), cold (shita), light (laghu), like nectar (amritopama). It is taken by the Sun and returned as rain hence light (laghu) and pacifies Vata and Kafa (vatakafapaha). Due to its coldness (shaitya), helpful for life (Jivana) and soothing effect (saumya goona) cures diseases due to pitta, due to blood (rakta) and poison (bisha). Gangambu is the water falling from the sky (rain). When it comes in contact with the Sun, Moon and air (suryya, indu and marut) and in respect of the place (desha) and time (kala) becomes beneficial (hitakara) and harmful (ahitakara) [1]
- (3) Gangya and Samudra jala - Keep some cooked rice (sali anna) in a silver pot (rajata patra) in rain water for some time. If the rice will remain clean (amala), no dirtiness will appear (aklinna) and no colour change will occur (abibarna) then it should be identified as Gangyajala.

Otherwise Samudra . Samudrajala is not usable except during the September- October (Āswayuja - aswina masha)[2]

- (4) When the pure rain water (antariksha - gangya jala) is not available then the surface water (bhumiṣṭha jala) having the same quality should be used[3]
- (5) Quality of water according to soil – Water follows the qualities of the soil where it remains stored like[4] –
 - (i) White soil (swetabhumi) – astringent in taste (Kashaya rasa)
 - (ii) Black soil (krishnabhumi) – sweet (swadu)
 - (iii) Pale soil (pandurabhumi) – bitter (tikta)
 - (iv) Blue soil (nilabhumi) – astringent and sweet mixed taste (kashayamadhura)
 - (v) Salty soil (usharabhumi) – salty (lavana)
 - (vi) Blackish soil (kapilabhumi) – slightly alkaline (sakshara)
 - (vii) Mixed coloured soil (mishrabhumi) – mixed quality (mishragoona)
- (6) The quality of water is also said to be dependent upon the dominance of mahabhuta in the soil (Jalagoona as per mahabhutadhikya) as follows [5] –
 - (i) Watery portion is more in the soil (apbhutadhikya) – sweet (Madhura)
 - (ii) Solid portion is more (prithvibhutadhikya) – salty (lavana) and sour (amla rasa)
 - (iii) Has warm components in more quantity (Tejoadhikya) – bitter and pungent (tiktakatu)
 - (iv) Airy portion is dominant (pavanadhikya) – astringent (Kashaya)
 - (v) Has more space between the components (akashagoonadhikya) – like the rainwater (divyanukari) , tasteless (avyaktarasa)

Water of black and white soil (ashita and sweta deshaja jala) that is touched by the Sun and air (surya-marutaprakasha) is considered to be pure (suchi) and like rain water [5]

- 7) The sources of surface water –well (kupa) , lake (Sarasa), pond(tadaga) , places covered by rock (chaundya) , spring (prasravana) , water reservoirs made by digging soil (audvida) , small well (bapi) , river (nadi) [6]
- (8) Qualities of the surface water [7] –
 - (i) Well water (Kaupajala) – slightly alkaline (sakshara) , produces vitiation of pitta (pittakrit) , increases digestive capacity (Deepana) , not vitiates vata (natibatalam)
 - (ii) Lake water (sarasajala) – sweet (swadu), light (laghu), vitiates vata (batala)
 - (iii) Water stored in rocky place (chaundya) – vitiates pitta (pittala)
 - (iv) Spring water (praasrabanjala) – causes equilibrium of dosha (doshahara)
 - (v) Water collected from a source dug in water (audvida) – sweet (swadu) , pacifies pitta (pittaghna)
 - (vi) Water of small well (bapyajala) – sweet (swadu) , light (laghu)
 - (vii) River water (nadeyajala) – vitiates vata (vatala) , dry (ruksha) , pungent taste (katurasa)
 - (viii) Water of place where rainfall is more (anupadeshaja jala) – heavy (guru)
 - (ix) Water of place where dryness is dominant (jangala deshaja jala) – light (laghu)
- (9) Qualities of river water (nadeyajala) [8] -
Water of the rivers flowing towards west is useful (pathya) because they flow with strong current (shighrabaha) and have clean water (amalodaka) . The rivers flowing towards other direction is not good (apathya) .

Water of the rivers originating from Himalaya and Malaya mountain are pathya because the water of these rivers get strong friction resulting in break and hit (asphalana, akshepa and biccheda) due to the presence of the stones on the way. But when this water gets stagnated then it causes worm (krimi), filariasis (sleepada), heart diseases (hridroga), diseases of the throat (kantharoga), diseases of the head

(shiroroga) etc.

Water of the rivers originating from prachya , avanti, aparanta causes piles (durnama) , and Mahendrajala causes different types of abdominal diseases (udararoga) and filariasis (sleepadaroga), rivers originating from Sahyadri and bindhya causes skin diseases (kustha) , anaemia (pandu) , diseases of the head (shiroroga) , pariyatraja pacifies dosha (doshaghna) , provides strength and vigor (bala-paurushakara), sea water vitiates tridosha (sagarambu tridoshakrit).

(10) Contaminated /polluted water and its effect – water that is mixed with putrified excreta of insects , snake , grass etc. (kita-ahi-mutra-bit-kotha, trinajalotkara), dirty (abilam) , mixed with clay, aquatic plants , algae etc. (panka-pankaja-saibala-hathaparnadisangsrutam) , not touched by sunrays , moonlight and air (surya-indu-pavanadrastang) , presence of many small living organisms (kshudrajantujustang) , water of unseasonal rain (abhibrastang) , having abnormal colour (bibrang) , dirty (kalushang) , thick (sthula) , frothy (fenila) , of abnormal taste (birasa) , with smell (gandhabat), hot (without any known cause) (taptang) , causes irritation of the teeth due to excessive cold (dantagrahya atisaityat) , of unusual time (anartabang) , rain water of first rain (prathama divyartava) , mixed with spider net , excreta, poison etc. (lutaditantu-bin-mutra-bishasangshleshadushitam) . Such water should neither be used for internal nor external purposes . These water , if used , may cause thirst (trishna), flatulence (adhmana), abdominal disorders (udararoga), fever (jwara) , cough (kasa) , depression of digestive capacity (agnisada), conjunctivitis (abhisyanada) ,itching (kandu) , swelling of the neck (galaganda) etc.[9]

- (11) If due to any cause this water is to be used then it is advised to purify with the following techniques[10] –
 - (i) Filter with thick clothes (ghanaparisarava) to make free from kshudrajantu etc.)
 - (ii) Heating with fire , sunrays and submerging of hot iron ball (agni, arka and pindatapana)
 - (iii) Cleaning by submerging some plant parts , gem etc. (prasadakarana by using parnimoola , bisagranthi -root of lotus , mukta – pearl – a valuable stone , kataka , saivala, bastra , gomedaka – a valuable gem etc.)
 - (iv) Eliminating the smell by using some good smelling flowers (gandhanashana) by using patala , karabirakusuma etc.)
- (12) How to drink water ? (Jalapanavidhi) –One should not drink water under the following circumstances [11] -
 - (i) water of other place till digestion of the previously taken water (if the person is in travel)
 - (ii) cold water before digestion if boiled water is taken in the previous episode
 - (iii) Hot water before digestion if cold water is taken in the previous episode
- (13) Importance of water for the livings [12] –
 - (i) Water is like the life of the livings
 - (ii) The earth is formed by water
 - (iii) Water is not absolutely contraindicated even in the situations of abstinence
- (iv) Without water one can suffer from dryness of mouth (ashyashosha), weakness of the body (angasada), even death (mrityu)
- (v) Neither a healthy nor a diseased person can lead his life without water
- (14) Forms of water – water should be used in proper dosage (matra) to get its benefits in 5 forms as – kevala (in natural form) , with medicine or prepared with medicine (sausadhang) , after boiling (pakwam) , in cold state (amom) and in warm state (ushnam) . If used otherwise it acts like poison (bisha) [13] .

- (15) Excess intake of water , even in the state of excessive thirst, can cause vitiation of pitta and kafa (pittashleshmaprakopa) , specially if the person is suffering from fever (jwara) , increases indigestion (ama), thirst (Trishna), sleep (nidra), drowsiness (tandra), flatulence (adhmana), heaviness of the body (angagaurava), cough (kasa), weakness of digestive fire (agnisada), vomiting tendency (hrillasa), salivation (praseka) , breathing difficulty (swasa) and rhinorrhoea (pinasa) [14]
- (16) Water (cold) is sweet after digestion (swadupaka) and cold in effect (hima - sita biryya) . Hence it should be used in hot form as even if it is used in excess or less quantity (ayogapana) it will remain laghu and not affect the digestive capacity [15]
- (17) Warm water (koshnajala) – A person suffering from indigestion due to kafa or vata (amajirna and bistabdhajirna) , even if not thirsty , should drink warm water in less quantity . It produces moistening (kleda) of the food and digests easily . But water if taken in excessive quantity produces excessive moistening (atikleda) of the food (anna) and causes aggravation of the condition [16]
- (18) Jalapanavidhi – In the following conditions one should not take even small quantity of cold water as it produces vitiation of the three dosha (tridoshakrit) – when the person suffers from imbalance of the body humors (anabasthitadosha), imbalance of digestive fire (anabasthita agni) and weakness due to disease (vyadhikshina) . A person suffering from weak digestive capacity (mandagni) should not take cold water (ama udaka) as it's character is against the agni . A person suffering from conjunctivitis (abhisyanada) , diseases of the spleen (pleeharoga) , abscess (bidradhi), tumour (gulma), anaemia (pandu), abdominal diseases (udararoga) , loose motion (atisara), piles (arsha) , irritable bowel syndrome (grahani), emaciation (shosha), oedema (shofa) should not take water . In emergency situations they should take water prepared with medicine (aushadhasanskritajala) . Even healthy person (swasthya purusha) should take less quantity of water except Autumn and Rainy season (sarad and grishma ritu) [17]
- (19) Water intake in relation to food (jalapana and anna) – If one takes water at the beginning of taking food he becomes thin (krisha) as water causes reduction of digestive capacity (agnisada) . If taken at the end of food causes fatty state (sthulata) and increase of kafa at the upper portion of the stomach (amashayordha) . If taken during food it causes moderate constituent (madhyangata) , appropriate proportion in body elements (dhatu-samyak) and easy digestion (sukhajarana) [18]
- (20) Quality of cold water (shitalajalagoona) – It is helpful in alcoholism (madyatyaya), fatigue (glani), fainting (murcha), vomiting (chardi), tiredness (shrama), delirium (bhrama) , thirst (Trishna), exposure to heat (ushma) , burning sensation (daha), diseases due to pitta (pittaroga) , diseases due to blood (raktaroga) and in poisoning (bishanashaka) [19]
- (21) Qualities of boiled water (kwathitajalagoona) – Water should be boiled and 1/4th, 1/3rd or half residue should be kept according to place (desha) and season (ritu) . It has no froth (fenarahita), no movement (avega), clean (amala) and useful (hitakara) . It is beneficial in hiccough (hikka), flatulence (adhmana), diseases due to vitiated vayu (anilaroga) , diseases due to vitiation of kafa (shleshmaroga), thirst (trishna), cough (kasa), breathing difficulty (swasa), rhinorrhoea (pinasa), pain of the flanks (parshwashoola) , indigestion (ama) , diseases due to excess fat (medaroga) , applicable in the persons undergone purificatory therapy just now (sadyahsuddha purusha), suffering from acute (new) fever (nabajararogi) and also increases digestive capacity (deepana, pachana) , beneficial for throat (kanthya) , light (laghu) and purifies urinary bladder (bastisodhana) [20]
- (22) Qualities of warm water (tapitajalagoona) – Water made hot by different means contains the following qualities [21] –
- (i) Water made hot by dipping hot stone , silver , soil , gold , exposing to sunray etc. , when taken in hot or cold form it pacifies tridosha (tridoshaghna) and reduces thirst (trishnanashaka)
 - (ii) Water , when made cold after boiling (kwathitashitala) is light (laghu) , produces dryness (ruksha) and reduces tiredness (klamaghna) . It is also beneficial in the diseases due to pitta – kafa and vata-pitta-kafa (pittakafaja and sannipataja roga) Boiled water , if kept for day and night (paryushita) it loses the induced qualities of fire (bahngoona) and becomes sour and causes vitiation of all body humors (amlagoona and sarbadoshakrit) .
- (23) Quality of water as per source [22] –
- (i) Water coming from stony sources (himakarodbhava) is excessively cold (atishita) , heavy (guru), hard (sthira) (difficult to digest) and vitiates kafa and vata (kafavatakrit)
 - (ii) Water collected /processed from places where chandrakanta gem is there (chandrakantodbhava) – destroys the harmful organisms (rakshoghna) , destroys poison (bishaghna) , cures fever (jwaranashak) , strengthens vision, intelligence and body (drishti-medha-bapustharyyakara) , sweet (swadu) , cold (hima) and light (laghu)
 - (iii) Coconut water (narikelodaka) is oily (snigdha) , sweet (swadu), increases vigor (brishya), cold (hima) ,light (laghu), pacifies thirst, vitiated pitta and vayu (trishna-pitta-anilahara), increases digestive capacity (Deepana), cleans urinary bladder (bastishodhana) .
 - (iv) Rain water of rainy season (barsha ritu) is the best (bara). River water (nadeyajala) of rainy season is the worst (abara).

DISCUSSION –

From the result of the study the following points can be considered for discussion –

- (1) Introduction of a section to discuss on water in a chapter in the book indicates the importance given by the scholar , Bagbhata , on water .
- (2) The general qualities of water is discussed by the author nicely . The process of rain, the effect of the sun, moon , air and soil on water is also very interesting and witness the depth of knowledge , observation and experience of the author . All the qualities of water mentioned indicate the effects of water on the user .
- (3) The concept of Gangya and Samudra jala as the best and worst for use and the procedure of examination for differentiation needs some further study and research . It is sure that , the water , if not have any pollution/contamination, will not make the thing exposed to it dirty .
- (4) In day to day life one cannot use rain water as it is difficult to collect or store for a long duration . Hence surface water is used after proper examination . Dependence of the water quality upon the character of the soil needs further study to justify .
- (5) The scholar discussed nicely about the sources of surface water with their qualities and uses . A list of diseases that can be caused by the specific water is also given . This needs a systematic study establish .
- (6) The character of polluted / contaminated water with it's effect is self explanatory and practical . With the knowledge of the description one can easily reject water and avoid the sufferings that it can cause .
- (7) The natural procedures of purification of water like filtering with cloth , sedimentation by using some natural substances , induction of attractive smell by using some flowers mentioned is also very interesting . It nicely reflects the knowledge of the scholar . Analytical study with

modern instruments is necessary to understand the utility of the mentioned procedures which , if proved useful, will be beneficial for the society .

- (8) The description of the needs of water for the livings , the rules of use , different forms and modifications with their use is self explanatory and easily understandable .

The signs and symptoms of water deficiency mentioned are directly same as the signs and symptoms of dehydration .

- (9) The contra indications, quality and effect of different types of water like, cold, warm, cooled after boiling, half residue etc., water of different rivers, effects of water drinking in relation to intake of food, quality and effect of coconut water etc. are interesting and have more scope of study, research and analysis. All can be justified with the Ayurvedic background but to make it popular and acceptable in present time study with modern parameter using modern techniques and instruments is necessary .

SUMMARY:

At the completion of the study the following points are postulated as summary –

- (1) Bagbhata , the author of Astangsamgraha, conducted a detail study and observation paying attention on the aspects like origin , natural storage procedure , character and quality of the water stored as surface as well as ground water , character of the water processed through different modification procedures , rules of drinking etc.
- (2) A detail study on the water falling on the earth from the sky as rain water was made by him with priority .
- (3) The character of the water of different natural reservoirs like pond , well , spring etc. is very interesting .
- (4) The description of the character of water of the rivers originating from different sources and flowing through soil of different character is also praisable .
- (5) Diseases mentioned in relation to the use of river water indicates the depth of study of the scholar .
- (6) The character of polluted (contaminated) water provides guidance to the common people to test water without any scientific device and without financial involvement .
- (7) The mentioning of the effect of Sunrays , Moonrays , Air , fire , heat etc. are also proves the depth of knowledge of the scholar .
- (8) The methods of purification advised are nothing but the initial natural process of the modern techniques .
- (9) The rules advised for drinking water with justification are also indicate the minute study and observation of the scholar .

CONCLUSION -

As the conclusion of the study it can be said that there is ampoule of scope and need of study , research and evaluation of the concepts of water mentioned in Astanga Samgraha which may bring many valuable informations to light . Such research projects need multidisciplinary effort and appropriate patronage .

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