

DIVERSIFIED USES OF COW URINE

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Received: 15 Feb 2014, Revised and Accepted: 30 Apr 2014

ABSTRACT

Cow is equated to mother in the Indian tradition and her urine panacea of all diseases. Cow urine is a divine medicine and is used for treatment of diabetes, blood pressure, asthma, psoriasis, eczema, heart attack, blockage in arteries, fits, cancer, AIDS, piles, prostrate, arthritis, migraine, thyroid, ulcer, acidity, constipation, gynaecological problems, It is also used as bio-enhancer, increase the nitrogen content of the soil, for better rearing of honey bees, hasten the pubertal age of the heifers exposed to bull's urine and as pesticide and larvicide for the fodder crops. Cow urine contains all substances, which are naturally present in the human body. Thus, consumption of cow urine maintains the balance of these substances and this helps cure incurable diseases. It is natural, eco-friendly with no residual effects, economical and easily available, hence can be harnessed as potential therapeutic agent.

Keywords: Cow urine, panchagawya, traditional medicine, Cow Urine Therapy.

INTRODUCTION

'The cow' is a mobile medical dispensary and cow urine is a panacea of all diseases [1]. The cow urine, one of the ingredients of 'Panchagawya' is capable of treating many curable as well as incurable diseases and has been used extensively in ayurvedic preparations since time immemorial as cited in ancient holy texts like Charaka Samhita, Sushruta Samhita, Vridhabhagabhatt, Atharva Veda, Bhavaprakash, Rajni Ghuntu, Amritasagar, etc [2]. A lots of research has been conducted in Cow Urine Treatment and Research Center, Indore over the past few years and it has been reported that gomutra is capable of curing blood pressure, blockage in arteries, arthritis, diabetes, heart attack, cancer, thyroid, asthma, psoriasis, eczema, prostrate, fits, AIDS, piles, migraine, ulcer, acidity, constipation, gynecological problems, ear and nose problems and several other diseases [3]. The use of cow urine in India can be traced back to the Vedic and probably prevedic period also. Cow urine as such has been most widely referred, used and venerated animal urine owing to its immense therapeutic speciality. While externally it has been used as lotion, ointments and bath, but, internally it has been used in preparation of oral medications and drinks. There is existence of innumerable instances in various ancient medical texts of the curative properties of cow urine for a horde of human ailments. In ancient Indian system of medicine, urine of cow was accepted, used almost as a broad spectrum antibiotic quite akin to that of twenty first century. The cow urine not only used against ailments of diseases as therapeutic agents but also have several other uses as in agriculture and sericulture sectors. So this article attempts to bring forth the diversified use of this heretical potion as was in vogue in ancient Indian system of medicine as gleaned from the ancient medical texts and current scientific findings.

Biochemical analysis of cow urine

The biochemical estimation of cow urine has shown that it contains sodium, nitrogen, sulphur, Vitamin A, B, C, D, E, minerals, manganese, iron, silicon, chlorine, magnesium, citric, succinic, calcium salts, phosphate, lactose, carboic acid, enzymes, creatinine and hormones [3]. Any deficiency or excess of these substances inside the body causes disorders. Cow urine contains all of these substances with having a balanced proximate composition. Therefore, consumption of cow urine restores the balance of these substances and thus helps in curing from incurable diseases.

Experimentally it has been concluded that fractions of cow urine obtained by solvent extraction possess antimicrobial activity due

to presence of aforesaid components those are solely responsible for the action [4]. It has again been observed that cow urine enhances the phagocytic activity of macrophages and thus helpful against bacterial infections. It also facilitates the synthesis of interleukin-1 and interleukin-2 [5, 6], augments B- and T-lymphocyte blastogenesis, and IgA, IgM and IgG antibody titers [7].

Traditional uses of cow urine

Cow urine is believed to have therapeutic value and used in many drug formulations. Essentially, cow urine is used as disinfectant and for purification. With an approximate shelf life of around 5 years, this can prove to be the most effective natural antiseptic and disinfectant, when compared to the synthetic chemicals those are currently available to the consumers [7]. Thus, it strengthens the fact that cow's urine is not a toxic effluent as 95% of its content being water, 2.5% urea and the remaining 2.5%, a mixture of minerals, salts, hormones and enzymes [8]. In the rural villages in India, cow's urine is being used since a very long time as an effective antiseptic for wounds, skin diseases, bathing, etc [7]. Ancient Indian Vedic Scriptures including Manu Smriti, Charaka Samhita and Sushruta Samhita and present day researchers have quoted that rational use of this animal product eliminates any non-functionality of respiratory systems, hepato-gastro-intestinal systems, cardiovascular systems, cancer and many others [9, 10]. Traditional uses of cow urine as medicine alone or with certain synergistic drugs has been described in Table 1 [3, 11].

Table 1: Traditional uses of cow urine and drugs used with cow urine

Diseases	Constituents of gomutra along with adjuvant
Fever	Urine, Pepper, Curd, Ghee
Leprosy	Dhruhardi, Urine
Deformation condition in leprosy	Nimbuchal, Urine
Chronic leprosy	Vasaka leaves, Kuraila bark, Kaner leaves, Neem bark, Urine
Epilepsy	Neem bark, Somapada bark, Mustard oil, Urine
Anemia (Pandu)	a) cow milk, urine, tripala b) loh bhasma, urine, milk

COW URINE THERAPY (CUT)

As therapeutic agent

Cow urine is basically 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 [12]. 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 Cancer etc [13-15]. Presence of urea, creatinine, swarn kshar (aurum hydroxide), carbolic acid, phenols, calcium and manganese have strongly explained for exhibition of antimicrobial and germicidal properties of cow urine [3, 9, 10]. 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 swarn kshar and fastens wound healing process which is due to allantoin [16]. 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, sulfur, sodium and calcium components act as blood purifiers, while iron and erythropoietin stimulating factor maintain hemoglobin levels [16]. 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 [16]. Aurum hydroxide and copper act as antidotes for various poisons in the body as certain poisons can be refined and purified if soaked in go-mutra for 3 days [3]. Guggul (*Commiphora mukul*), bhalataka (*Semecarpus anacardium*), loha (iron) and silver can be purified and aconite (*Aconitum napellus*) detoxified using this cow urine therapy [16, 17]. 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 [4]. 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 [20].

As bio-pesticide and bio-enhancer

Panchgawya' made up of five cow products; milk, curd, ghee, urine and dung, is also used as fertilizers and pesticides in agricultural operations. As per recent studies cow urine has proved to be an effective pest controller and larvicide when used alone and also in combination with different plant preparations by enhancing the efficacy of different herbal preparations [19-21].

The recent invention related to cow urine was its role as a bio-enhancer. Distillate cow's urine is an activity enhancer and availability facilitator for bio active molecules (antibiotic, antifungal and anticancer drugs) [18]. The distillate helps in absorption of antibiotic across the cell membrane in animal cells, gram positive and gram negative bacteria at 40-50°C [23], transport across the gut wall by two to seven times [24]. It also increases the activity of gonadotropin releasing hormone conjugate with bovine serum albumin (GnRH-BSA) and zinc [25]. The GnRH-BSA conjugate has a deleterious effect on reproductive hormones and estrous cycles of female mice. So, concentrated cow urine acts as a bio-enhancer of immunization efficacy to modulate these effects [25]. Cow urine has been granted US Patents (No. 6,896,907 6,410,059 and 6,410,059) for its medicinal properties. It acts as a bio-enhancer of anti-infective, anticancer agents/ nutrients from compounds, antibiotics,

drugs, therapeutic, nutraceuticals, ions, and also independently as a bioactive agent.

In agriculture

Cow's urine boosted the annual rye grass yield by causing an increase in nitrogen (N) component of the soil and a marked depression in N fixation by 10% annually in clovers particularly in winter [26]. The effects on yield lasted 2-3 harvests and were followed by a decrease in clover growth. Total N content in the cow urine is very high ranging from 6.8 to 21.6 g N/l, out of which an average of 69% is urea [27]. Urine increased the N concentration of grass (particularly the nitrate fraction) and increased the potassium concentration of grass and clover. Increased pasture growth from urine patches has been observed even following high N fertilizer application which may be due to greater amount of N applied or to some interaction with one of the other elements in urine such as potassium or sulphur [26].

For better rearing of honeybees

Scientists in Uttarakhand are making use of cow urine to save bees from microbial diseases during the rearing process [24]. Cow urine facilitated rapid and holistic recovery in disease infected combs, promoted the growth of brood, enhanced the efficiency of the worker bees in the colonies, thus revealed that the cow urine can serve as a potential eco-friendly measure for management of European foulbrood (EFB), a serious, bacterial disease of honeybee brood found throughout the world in honeybee colonies and also as an indirect control of mite diseases in colonies.

The Effects of Bull Urine on Puberty and Calving Date in Crossbred Beef Heifers

Earlier studies have proposed for the presence of a priming pheromone in bull urine that can hasten the onset of puberty in beef heifers [28]. If heifers calve earlier in the calving season, then they can be expected to continue to calve early throughout their lifetime. It also allows for more effective management of the calf crop through early weaning more efficiently and simultaneously allows a longer period to re-establish ovarian cycle before the next breeding period. Thus, treatment with bull urine has potential applications for abbreviating the calving season in beef heifers.

The effect of cow urine on ovipositor cues to mosquitoes

Kweka et al. (2011) studied the seasonal evaluation of the efficiency of cow urine in producing ovipositor cues to *Anopheles gambiae* and *Culex quinquefasciatus* [29]. Cow urine both fresh and 7 days aged had a positive influence on oviposition behavioural response as measured using Oviposition Activity Index (OAI) in mosquitoes. The OAI was positive in both the species of mosquito which differed species wise as well as under experimental conditions, but was maximum in rainy season than dry months of the year. They inferred that due to microbial activities, the chemical compounds could have been produced due to ageing in cow urine as by-products that might influence ovipositor attraction and/ or deterrence cues for each mosquito species. Furthermore, the presence of chemicals and continued decomposition of cow urine increases microbial colonies which might have generated more volatile compounds that attract gravid mosquitoes' to oviposit [29]. Thus, cow urine may act as an effective oviposition attractant, which is locally available, economical and reliable, hence can be deployed in aggregating mosquitoes' larval habitats for use in the therapeutic planning and management of effective control of malaria [30].

ADVERSE EFFECTS

Common side effects of urine therapy include diarrhoea, itch, pain, fatigue, soreness of the shoulder, fever, etc which appears more frequently in patients suffering long term or more serious illnesses. Each episode may last 3-7 days, but sometimes it may last for 1-6 months. Hence, some abstain from this therapy due to such bad episode and others due to the stigma associated with it. If one persists and overcomes the difficulty, if anyone can enjoy the eventual happiness of healthy life [31]. The patients should be optimistic and realize the natural healing power. Persons suffering

from chronic disease who adopt CUT in a cheerful manner and with the positive attitude will realize and observe the benefits in their mental and physical health within a short period of 10 to 15 days.

CONCLUSION

Go-mutra 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. This project has documented the constituents of the cow urine and its medical importance and has brought forth their efficacy in different phases of life. However, there is still a need not only to explore further research possibilities but also to stop cow sacrifice across the world. she is a very sacred and holy animal so to worship as God. Each and every part of cow is useful even after its death. It dedicates itself in the service of mankind. In agrarian country like India, where majority of rural population have cow as their additional source of income. 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 could 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 at abundance.

ACKNOWLEDGEMENTS

The authors are thankful to e-Library section of Central Library, Orissa University of Agriculture & Technology for ample assistance, help and support.

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