

AN OVERVIEW OF THE USAGE OF PANCHAGAVYA IN ANIMAL HEALTH

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Abstract: Panchgavya is also known as Cowpathy in Ayurveda. In India, the cow is revered as a goddess known as "Gaumata" because of its nurturing qualities similar to those of a mother. Almost no adverse effects are associated with using Panchgavya, which is why it is recommended in Ayurveda for treating disorders affecting numerous body systems. *Panchgavya* has been derived from two words, '*Panch*' meaning five and '*gavya*' meaning obtained from '*Gau*' means cow. The word Panchagavya originated from Sanskrit which means the combination of five products (Milk, Curd, Ghee, Urine and Dung) obtained from cow. Cow milk is widely regarded as a nutritious diet and can prevent the growth of microorganisms, has erotic qualities when combined with the leaves of medicinal herbs, and the fat in milk has anticancer characteristics. Curd (dahi) is recommended as a blood purifier for conditions such as hemorrhoids, piles, and gastrointestinal issues. Ghee made from cows has been shown to boost immunity. It is important to highlight the use of cow dung as an antifungal and for treating malaria and tuberculosis. Cow urine is a powerful remedy for numerous medical conditions, including but not limited to epileptic convulsions, diabetes, hepatitis, inflammation, fever, and anaemia.

Keywords: Indian cow, Cowpathy, Panchagavya, Growth promoter

Introduction

Panchagavya is an ancient traditional medicine in India. In ancient India, people are most beloved in treating various diseases by natural and traditional manner. By using natural or traditional medicine they are living healthily. Panchagavya is a unique cow product-based blend that is used in several Hindu rituals. It is a treasure of health benefits and medicinal properties. The word Panchagavya originated from Sanskrit which means the combination of five products (Milk, Curd, Ghee, Urine and Dung) obtained from cow. Among all five constituents three are direct products cow dung, urine, and milk; while remaining two curd and ghee are derived products. It serves irreplaceable medicinal importance in Ayurveda and traditional Indian clinical practices. India is the land of traditions with its roots in ancient science directly linking social rituals and scientific reasons behind them. In India, a cow is called '*Gaumata*' or '*Kamadhenu*' due to its nourishing nature like a mother. *Kamadhenu* is the name of the sacred cow who believed to accomplish desired things. *Panchgavya* has

been derived from two words, '*Panch*' meaning five and '*gavya*' meaning obtained from '*Gau*' means cow which *in-toto* represents five products obtained from a cow. Each of the '*gavya*' exerts a different medicinal impact against various diseases.

The ancient times of India, traditional therapies based on Panchabhootas (Five elements of nature – Earth, Water, Fire, Air and Space) and the health is affected by Tridoshas viz., Vadha (air), Pitha (fire) and Kapha (Phlegm). Any disturbance in the harmony of the natural ratio of the five elements may cause the disease. Based on these fundamental principles of life, different remedial systems were developed i.e., Vrikshayurveda for plants, Mrigayurveda for animals and Ayurveda for human beings (Charaka - Samhita, 1981).

The Ayurveda, the ancient Indian system of medicine, has detail mentions of importance of cow's milk, curd, ghee, urine in the treatment of various human ailments. Every product has distinct qualities and uses in health of human and animal and agriculture fields. (Achliya *et al.*, 2004). Panchgavya therapy to be beneficial in curing several human ailments and enhance the body's immunity and resistance to fight the infections and also is recommended for a variety of diseases viz., asthma, flu, allergies, cardiovascular diseases, renal disorders, rheumatoid arthritis, leucoderma, wound healing, leucorrhoea, hepatitis, dietary and gastrointestinal tract disorders, obesity, tuberculosis, ulcer, chemical intoxication, and other bacterial, fungal and viral infections. The therapy has also demonstrated its therapeutic potential against severe pathological conditions like cancer, AIDS, and diabetes. (Dhama *et.al.*2005).

In natural farming, panchgavya plays a major role and also its application ensures zero usage of harmful synthetic fertilizers, pesticides and insecticides. It can enhance soil fertility, improve the quality of earthworms, and promote crop health by acting as an organic fertilizer. Cow dung and cow urine are excellent sources of energy to generate biogas and electricity. Bio-fertilizer and pest repellents obtained from cow urine and dung restores micro-nutrients and fertility of the soil and provides food free from health hazards of chemical fertilizers and pesticides.

Panchgavya Therapy as an alternate prophylactic and therapeutic approach for sound livestock and poultry health along with human health and as devotion in the services of the "Holy Cow" which is central to the bio-chain.

Indian Cow

The indigenous cattle, scientifically called as *Bos Indicus* or *Zebu cattle* breeds which are the humped cattle, found in the Indian sub-continent are thought to be the world's oldest

domesticated cattle. It is now proved by the fact that humped cattle remains were found in Mohenjo-Daro site of Indus Valley indicating their presence in India even before the arrival of Aryans. Cow has been deemed very holy in Indian culture and any assistance presented to them is regarded as heavenly. As a salutation of gratefulness, cow has been adored as 'Gomata' (mother cow) in India since ancient times. The Cow biodiversity present in India is unparalleled in the world, encompassing a wide spectrum of breeds of indigenous cattle, which is elaborately allied with social, cultural and traditional values of the diversified geographical areas of the country and its inhabitants. Presently, cow rearing is an important source of income and an enterprise which enables poor and landless farmers to earn income using common property resources and land (Abhai Kumar Srivastava, 2018)

Cow Milk

According to Hindu mythology as well as the Indian traditional medical practices (both the classical systems like Ayurveda and Siddha and the oral practices of the rural villagers) cow milk has rejuvenatory health protecting and health promoting properties and hence has been said as the best one among vitalisers. Cow milk has been mentioned for its ability to strengthens the seven Dhatus (tissues) such as Rasa (plasma), Rakta (blood), Mamsa (muscle), Meda (adipose tissue), Asthi (bone), Majja (bone marrow), and Shukra (reproductive tissue) in Charak Samhita. It has also been used to improve memory and boost immunity (Raut and Vaidya, 2018). The cow milk is a healthy and protective food. The proteins of milk are of a high biological value. The digestibility of milk proteins is rated higher (96%) than that of plant proteins (74-78%).

Cow Curd

Cow curd (*dahi*) or *Matha* (whey or butter milk) prepared from indigenous cow is milk is considered as digestive, nutritive and useful in gastrointestinal ailments by checking or controlling the growth of harmful organism. Curd from cow milk is considered "Vatanashak" and blood purifier. If it is taken with sugar, it is useful in "Pitta" induced disorders and cures the blood related problems. Whey of cow (Butter milk) is known as "Tridoshnashak" and found useful in piles and other gastrointestinal disorders. (Singh and Chauhan, 2004)

Cow Ghee

Cow ghee is traditionally believed to improve memory, voice, vision, intelligence and body's resistance to infections. It enhances physical and mental health, keeps muscles and tendons healthy. It is a good blood purifier, anti-ageing agent, and is also good for cholesterol and heart patients. It helps in preventing and controlling paralysis and asthma. It has got

immunostimulant potential: it increases neutrophil adhesion, haemagglutination (HA) titre and is helpful in delayed type hypersensitivity (DTH). Cow ghee in combination with certain selected herbals can cure skin diseases and facilitate healing of wounds when used in combination with honey.

Cow Urine

Cow urine is basically an excellent germicide and a potent antibiotic. It is used as antiseptic, disinfectant, antimicrobial, antifungal, anthelmintic, analgesic and anti-obesity agent. Cow urine has been described in 'Sushrita Samhita' and 'Ashtanga Sangraha' to be the most effective substance/secretion of animal origin with innumerable therapeutic values. In Charak Samhita, it is mentioned as a regulator governing several abdominal and dermatological disorders such as itching (Kandu), eczema (Vicharchika), and acne vulgaris (Yauvanpidika). Similarly, Sushruta Samhita described their properties as a cognition enhancer (Medhya) and reversal of certain cardiac (Hrid Roga), gastrointestinal (Udar Roga), and kidney-related problems (Randhawa and Sharma 2015; Steer 2019). 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. Cow urine contains 24 types of salts and the medicines made from cow urine are used to cure several diseases. Cow urine contents are water 95%, urea 2.5%, minerals, salt, hormones, and enzymes-2.5%.

Cow Dung

Cow dung possesses antiseptic, antibacterial and antifungal properties and acts as skin tonic, and is useful in psoriasis, eczema and gangrene. Mixture prepared with crushed neem leaves is good for boils and heat rashes on skin. It is a good alternate for chemical toothpastes. It destroys micro-organisms that cause disease, fermentation and putrefaction.

Cowpathy

Cowpathy (Sanskrit: Panchagavya) is a treatment based on the products obtained from cows, used in Ayurvedic medicine for human illness. Panchgavya chikitsa is an age old system of medicine described in ancient Indian literature 'Ayurveda'. The Ayurvedic medicines of animal origin are mainly prepared from indigenous cow products such as urine, dung, milk, curd and ghee. Panchagavya therapy or Cowpathy utilizes five products as these possess medicinal properties and are used as single or in combination with some other drugs of herbs, animal or mineral origin for the treatment of several disorders and diseases. Panchagavya products are rich in nutrition, amino acids, proteins, vitamins, minerals, and hormones. These

products are known to cure several human diseases and enhance immune power and also good for animals, which provides rich nutrition and helps to boost the immune system.

In ancient literature of Ayurveda for preparing Panchagavya by using various formulae, used as single or combined with multiple herbal drugs. Ancient literature such as Chakara Samhita, Chaukambha Sanskrit Pratistana revealed the various formulations of Panchagavya which is used alone or combined with multiple herbal drugs. The different formulations of Panchagavya are as Swapla – Panchagavya ghrita, Panchagavya ghrita (means ghee formulations) and Mahapanchagavya gritha (means the addition of 18 or 24 herbs with Panchagavya to prepare maha panchagavya ghrita). These different formulations are used to treat various human diseases. (Dhama *et al.*, 2012).

Panchagavya therapy or Cowpathy utilizes five products as these possess medicinal properties and are used as single or in combination with some other drugs of herbs, animal or mineral origin for treatment of several disorders and diseases like flu, allergies, colds, cough, arthritis, rheumatoid arthritis, leucoderma, leucorrhoea, alopecia, asthma, hyperlipidemia, renal disorders, dietary and gastrointestinal tract disorders, acidity, ulcer, wound healing, heart disease, skin infections/diseases, tuberculosis, chickenpox, hepatitis, leprosy and other bacterial/viral infections, aging, chemical intoxication, worm infestations, obesity. Panchagavya products are rich in nitrogen, sulfur, phosphate, sodium, manganese, chloride, magnesium and calcium salts, acids like carbolic, succinic and citric, vitamins such as A, B, C, D & E, minerals and hormones (Parkavi *et al.*, 2011).

Athavale *et al.*, (2012) evaluated the antioxidant activity of traditional ayurvedic preparation of Panchagavya and concluded that Panchagavya has high antioxidant potential and indicated that, this forms the basis of treating cancer by using panchakavya.

Panchagavya for Animal Health

Panchagavya is a living elixir of many microorganisms, bacteria, fungi, proteins, carbohydrates, fats, amino acids, vitamins, enzymes, known and unknown growth promoting factors micronutrients trace elements antioxidant and immunity enhancing factors. Live microorganisms in the Panchagavya stimulate the immune system and produce lot of antibodies against the ingested microorganisms. This response of the body increases the immunity of animals and humans and thus helps to prevent illness and cures disease. It slows down the aging process and restores youthfulness. Panchagavya supplementation improve appetite, digestion and assimilation and elimination of toxins in the body.

Functional activities of Panchagavya

Antimicrobial activity

Panchagavya are promising source for simple and naturally derived less expensive bacteriological media with antifungal effect with growth promotion (Baby Joseph and Sankarganesh, 2011). The major antimicrobial proteins lactoferrin B present in cow milk has spectrum against various fungal species and it inhibit the environmental fungal flora (Mete *et al.*, 2009)

Growth Promotor

Garg *et al.* (2004) observed that better body weight and weight gain in panchagavya fed groups (7.5 and 10.0 g/kg) at 4 weeks of age in broiler. Mathivanan *et al.*, (2008) reported that supplementation of panchagavya at 7.5 g/kg of broiler diet had significantly better FCR than control diet. Panchgavya, when used along with a plant like *Andrographis paniculata*, can act as an alternative to antibiotic growth promoter and enhance productivity of the broiler industry.

Hepatoprotective

Panchagavya supplementation significantly reduced the serum Aspartate aminotransferase (AST) and alkaline phosphatase (ALP) activity in commercial broilers. Achliya *et al.* (2003) also reported that Panchagavya Ghitra administered for 7 days on alternative days markedly prevented the CCl₄ induced elevation of serum AST and ALT in albino rats, which indicated the hepatoprotective activity of panchagavya

Conclusion

Panchgavya is positively an encouraging solution for various ailments/diseases of humans and animals with immense biomedical applications along with other beneficial usages. Its usage would further expand through scientific validation and research supports, clinical trials, commercialization, and popularity in the society and the public. 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. infection.

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