

Panchgavya: A Precious Gift to Humankind

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Abstract

Panchgavya represents milk, urine, dung, ghee, and curd, derived from cow and serves irreplaceable medicinal importance in Ayurveda and traditional Indian clinical practices. In Ayurveda, Panchgavya treatment is termed as 'Cowpathy'. In India, the cow is worshipped as a god called 'Gaumata,' indicating its nourishing nature like a mother. Ayurveda recommends Panchgavya to treat diseases of multiple systems, including severe conditions, with almost no side-effects. It can help build a healthy population, alternative sources of energy, complete nutritional requirements, eradicate poverty, pollution-free environment, organic farming, etc. Panchgavya can also give back to Mother Nature by promoting soil fertility, earthworm production, protecting crops from bacterial and fungal infections, etc. The present article aims to summarize the health and medicinal benefits of Panchgavya.

Introduction

In India, a cow is called 'Gaumata' or 'Kamadhenu' due to its nourishing nature like a mother. Panchgavya is a treasure of health benefits and medicinal properties. The Ayurvedic system of medicine has described the significance of using cow milk, ghee, urine, dung, and curd, each of which is termed 'gavya' for the treatment of various diseases. Each product possesses different components and uses for human health, agriculture, and other purposes. Each of the 'gavya' exerts a different medicinal impact against various diseases. Panchgavya therapy or treatment is called 'Cowpathy', similar to other pathies (allopathy, homeopathy, and naturopathy). Each 'gavya' can be used as a single therapy or in combination with other products or with other treatments. Also, all five products can be used alone or combined or any other synthetic, herbal, or mineral origin.

Panchgavya therapy 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.

Panchgavya plays a crucial role in organic farming practices as the most favourable organic manure for agricultural fields. Its application ensures zero usage of harmful synthetic fertilizers, pesticides, insecticides, and antibiotics. No other manure can be as cost-effective and beneficial as Panchgavya.

It can enhance soil fertility, improve the quality of earthworms, and promote crop health by acting as an organic fertilizer. Additionally, cow dung and cow urine are excellent sources of energy to generate biogas and electricity.

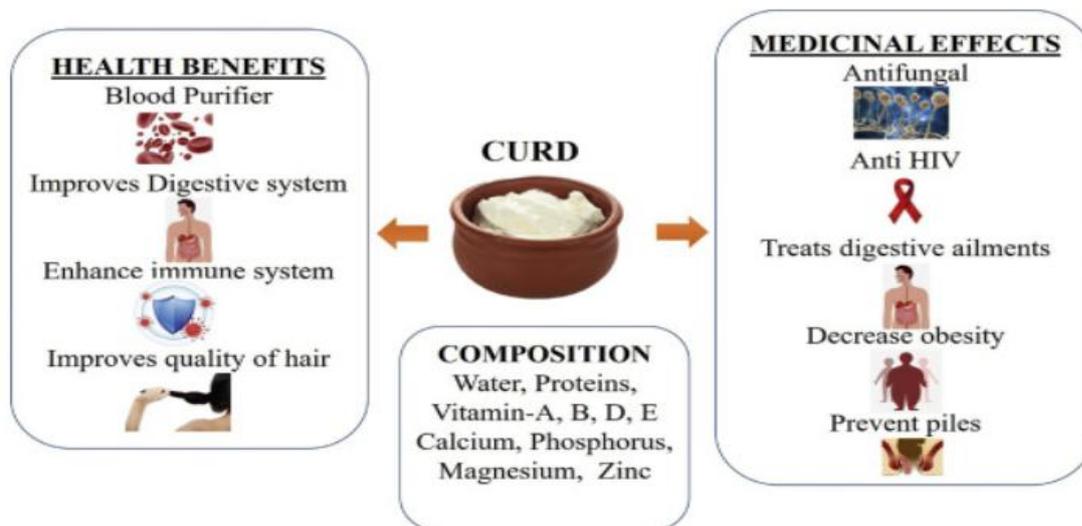


Cow-derived products

1. Curd

Curd also called 'yogurt' or "Dahi", is consumed worldwide due to its high nutritional value and health benefits. Curd is a rich source of probiotics that exert various beneficial effects upon oral administration. Curd contains several nutrients and micronutrients, including water, proteins, vitamins like A, B, D, and E; minerals like calcium, phosphorous, magnesium, zinc, etc. Probiotics present in curd help in strengthening the immune system and digestive system, whereas various minerals, vitamins, and proteins in curd help fight against multiple pathogens, including HIV. Curd also acts as a blood purifier and helps in lowering the total cholesterol, and low-density lipoproteins, thus, preventing the risk of obesity, anti-

fungal effect for treating dandruff from hair and treating piles. The composition of curd, its health benefits, and its medicinal effects.



2. Cow dung

Cow dung is rich in several beneficial microbes like Saccharomyces, Lactobacillus, Bacillus, Streptococcus, Candida, etc. It also contains various nutritional components, including minerals, vitamins, potassium, nitrogen, oxygen, carbon, cellulose, hemicellulose, mucus, lignin.

In rural areas of India, a dried cow dung cake is used as a source of energy for cooking food, decreasing the dependency on other sources of energy and is entirely environment-friendly and ensures air purification by killing the microbes in the surrounding air. 'Gobar' gas (biogas) plants also serve as a significant energy source. They convert cow dung into methane gas, which is used as a source of energy for cooking and generation of electricity. Fibrous material obtained from cow dung is used for the preparation of papers.

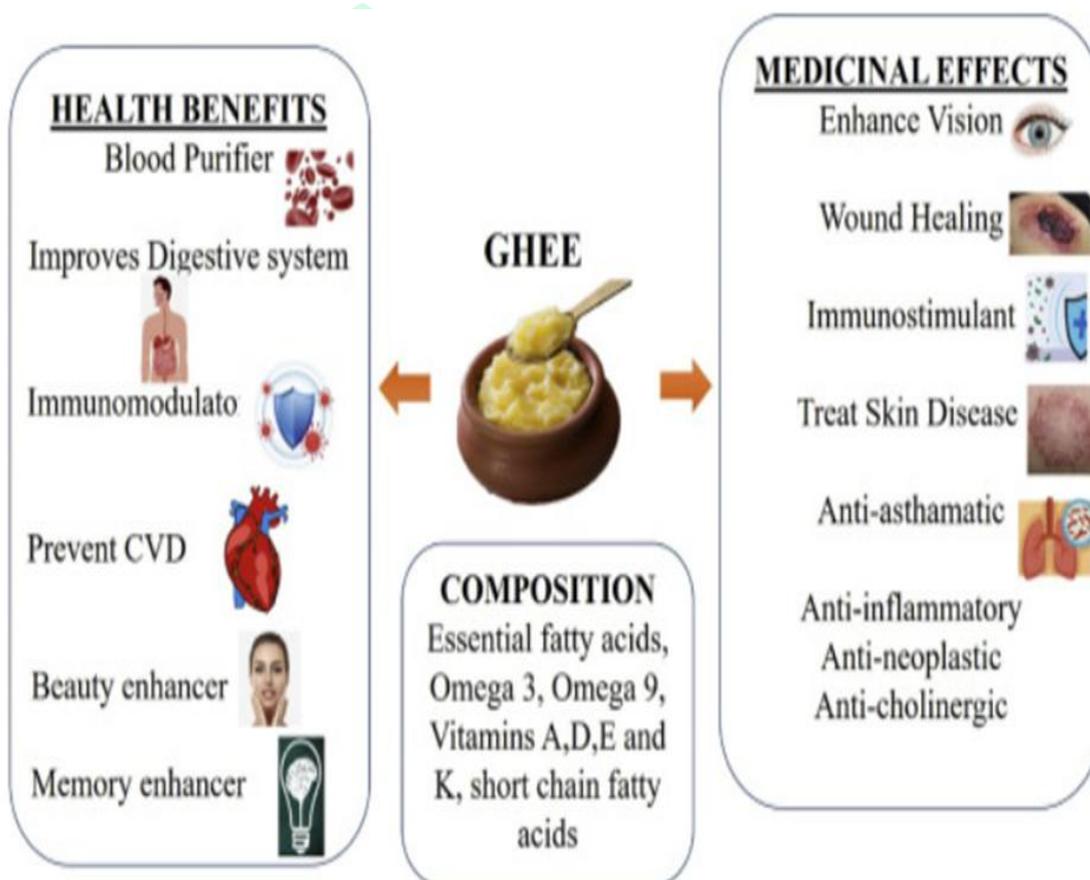
Recently, cow dung-based mosquito repellents have been among the best alternatives for synthetic mosquito repellants. Also, cow dung-based toothpaste protects against oral pathogens and improves oral health. The use of cow dung ensures more environment-friendly and cost-effective human activities. The use of cow dung in agriculture is essential to maintain soil quality. High microbial count and nutritional value led the cow dung as manure for farming practices in organic farms.

Cow dung serves as the best replacement for these chemicals and ensures human and animal health. Cow dung has also demonstrated anti-bacterial and anti-fungal effects. It

serves as a skin tonic and is found effective in treating psoriasis and eczema. The mixtures of crushed neem leaves and cow dung helps against boils and heat rashes.

3. Cow ghee

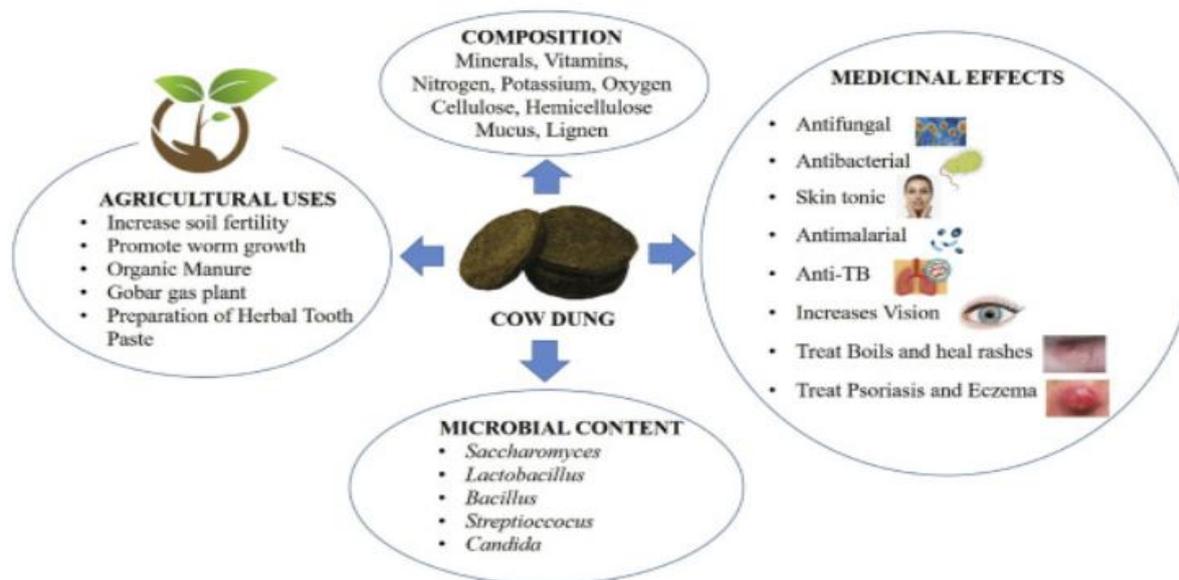
Cow ghee prepared by traditional method possesses high nutritional value, medicinal benefits, and helps to promote good health. Ghee is prepared by heating the butter obtained from cow milk, and heating must be continued at high temperature until the moisture is completely lost.



Traditional methods of ghee preparation-Ghee can be prepared using four different methods and are explained as follows:

Method 1: Preparation of creamery butter ghee.

In this method, cream from the milk is separated and stored to obtain the desired acidity. This cream is then churned to get the butter. After churning, buttermilk and creamery butter are separated. The butter is then heated at the desired temperature, and molten ghee is obtained.



Method 2: Preparation of desi ghee.

The milk is first boiled, cooled at room temperature, followed by the addition of lactic acid culture and incubation for 10 to 16 h to prepare curd. Water is added to the curd and churned to obtain the butter called 'desi butter'. The butter is heated at the desired temperature, and molten desi ghee is obtained. The ghee must be decanted while hot and filled in a container.

Method 3: Preparation of ghee directly from cream.

Cream from milk is separated and heated to remove the moisture by maintaining the desired temperature. Molten ghee is obtained, allowed to settle, further decanted, and stored in containers.

4. Cow urine

Cow urine or "Gaumutra" is a non-toxic liquid waste discharged from the cow. Cow urine or its distillate is known to have several health benefits to improve the quality of life and prolong survival rates in patients with severe diseases. Cow urine is known to induce diuretic action and also acts as a nephroprotective agent. It can also help in weight loss, digestive issues, edema, reversal effect against various cardiovascular and kidney diseases. It can also treat diarrhea, GIT infections, jaundice, piles, anemias, and skin diseases like vitiligo. Cow urine composition and their medicinal effects Cow urine contains 95% water, 2.5% of urea, and the rest 2.5% include components like enzymes, hormones, salts, and minerals. Various components of cow urine and its uses. Besides this, cow urine also contains

various enzymes to improve the digestive system and build a robust immune system. Vitamins including A, B, C, D, and E are also present in cow urine.

5. Cow milk

Traditional Indian systems of medicine had described the medicinal effects of cow milk in ancient literature. Milk is used for its health-protecting, health-promoting, and wide range of therapeutic effects. Indian breed of cows delivers A2 type of milk, whereas A1 type of milk is given by crossbreed or exotic cow species. A1 type of milk consumption of A1 milk also causes asthma, heart diseases, and allergic reactions. Milk also contains essential fatty acids and is a rich source of calcium and phosphorous. Phospholipids including cephalin, lecithin, and sphingomyelin, and vitamins including A, B2, B3, and K are also found in milk. Consumption of cow milk shows various health benefits.

Cow milk is used as a replacement for breast milk for infants. It is essential for the growth of teeth, bones, and heart activities management. The low cholesterol fat of milk is vital for mental and physical development, while milk helps maintain the digestive system, immune system, and brain functions. Lactose serves as an essential source of energy. Milk also enhances vision because of vitamin A whereas vitamin K regulates the blood clotting process. Milk serves as a gold mine of medicinal effects.

Regular milk consumption is suggested for patients suffering from gall bladder diseases, diabetes, and hyperlipidemia. It was found to restrict cancerous growth. Milk has anti-cancer activity against skin, colon, and breast cancer.

- **Method of preparation of Panchagavyaghrita** and its variants Classic Ayurvedic textbooks (AcharyaCharak and Vagbhatacharya) have quoted the traditional methods of preparing PanchgavyaGhrita (PGG). This ancient literature has suggested the preparation of PGG with all five Panchgavya components in equal proportion.

Therapeutic effects of Panchagavya

Wound healing activity

Cow ghee has demonstrated potential wound healing activity. High saturated and unsaturated fatty acid content is supposed to have participated in wound healing. Cow ghee was also evaluated with Aloe vera for wound healing potential by topical application 0.5 g of formulated gel. External application of cow urine for 14 days on the damaged area exhibited

50% wound healing compared to 50.3% healing of nitrofurazone, showing cow urine was more effective than nitrofurazone.

Effect on eyes

Computer Vision Syndrome is a common problem across the globe, characterized by drying of eyes, burning sensation, itching, and redness. Lubricating eye drops are used for the treatment, and their regular use can cause damage to the eyes due to preservatives. Cow ghee has a lubricating property that can be used to treat CVS without any harmful effects. Cow ghee has Vitamin A which helps maintain moisture in the outer lining of the eyeball and prevents dryness and blindness.

Role of Panchgavya in agriculture

Effect on soil

Panchgavya improves soil fertility by increasing organic matter, macro and micronutrient levels, and the uptake of nutrients in plants, promoting the growth and reproduction of micro-organisms and maintaining good soil health. It also progresses the physical properties of soil by increasing the porosity and balancing the soil aggregate stability, regulating soil pH and the soil's nutrient profile.

Effect on different parts of plants and crops

The spraying of Panchgavya on leaves results in the production of invariably bigger leaves and denser canopy; enhances photosynthetic material, which results in maximum production of metabolites and photosynthates. It also develops side shoots from the trunk carrying the maximum number of fruits to maturity; rich and high branching; rich and dense roots grow in deeper soil layers. Furthermore, it helps plants and crops remain fresh for a longer time with a high intake of nutrients and water.

Role in organic farming

Panchgavya helps in the production of synthetic pesticide-free food. It also maintains and restores crop production levels when the field changes from inorganic to organic farming practices within a year. It enhances the shelf-life, taste of fruits, grains, and vegetables and yields better and safe quality food products.

Conclusion

Panchgavya has demonstrated its potential to serve humankind and is a promising therapy against various human ailments. The effects of Panchgavya must not be limited only



to ancient literature although, scientific efforts are needed to validate biological activities and safety and establish the standards. It is equally important to educate the people and promote Panchgavya products to seek the world's attention towards India's rich traditional practice and literature.

