

REVIEW ARTICLE

# Panchgavya in Cosmetics

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## ABSTRACT

**Introduction** – The word *Panchgavya* is made up of two words *Panch* and *Gavya* which means five things obtained from the cow. They are *Godugdha*, *Godadhi*, *Goghrita*, *Gomutra*, and *Gomaya*. In *Ayurved*, treatment by them is known as cowpathy. Cosmetics are products applied to the body or its external part to beautify, cleanse, or improve the appearance and enhance attractive features. They contain various harmful or toxic chemicals capable of causing harmful effects on the skin. In *Ayurved* herbs and minerals are used as ingredients in cosmetics that are familiar to the skin. Also, cosmetics word indicates achieving merit longevity with good health and happiness.

**Materials** – Sufficient literature survey has been to review the updated information about *Panchgavya* elements. Cow's milk has anti-aging, antifungal, and antibacterial properties and makes skin smooth and fair. Curd has the highest nutritional value and blood purifier, appetizer, and antifungal properties. *Goghrita* has Antioxidant, anti-inflammatory, antibiotic, deep healing, and sedative properties. *Gomutra* has antioxidant, cleansing, and bio-enhancing properties. *Gomaya* has cleansing, improves blood circulation, and has antifungal and antibacterial qualities. *Panchgavya* is rich in many trace elements, minerals, acids, and all vitamins. All can do Anti-aging effects being antioxidant, reducing infection, antibiotic action, blood purification, and nutrition for the skin.

**Result & Discussion** – *Rasa*, *Rakta*, and *Mamsa dhatus* are especially reflected in the skin. *Rasa* keeps the skin healthy, *Rakta* detoxifies the skin toxin and *Mamsa* provides firmness to the skin. *Oja* is also an important factor in skin appearance. All *Panchgavya* is combined or individual able to anti-aging effects (*Rasayan*), *Dhatuvarhak* quality. They maintain skin moisture; enhance immunity both cellular and humeral. They act as anti-aging agents by preventing the free radical formation and efficiently repairing DNA. Nutricosmetic is used for nutritional cosmetic and relate to eating and drinking products in coordination with the usual skin routine for better results. *Panchgavya* is better nutricosmetic nowadays.

**Key Words** *Panchgavya*, *Gomutra*, *Gomaya*, *Rasayan*, *Dhatuvarhak*

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## INTRODUCTION

*Ayurveda* is a very ancient science but is equally important today. The word *panchgavya* is made up of two words *panch* and *gavya* which means

five things obtained from the cow. They are cow milk, cow curd, cow ghee, cow urine, and cow dung juice in equal quantities<sup>1</sup>. Three are direct constituents like cow milk, cow urine, and cow

## REVIEW ARTICLE

dung juice and Two are derived products cow curd and cow ghee.

India was very advanced in ancient times, with the oldest records of cosmetics around 1500 BC in the Indus valley civilization. Cosmetic means any article intended to be rubbed, poured, sprinkled, or sprayed on or applied to the human body or any part of the body for cleansing, beautifying, promoting attractiveness, or altering the appearance<sup>2</sup>.

The estimated value of the cosmetics industry today is around 20 billion dollars globally. Cosmetics have constituted a mixture of chemical compounds derived from either natural sources or synthetically created. Chemicals are used in cosmetics as preservatives or solubilizes for odor, colorants, and UV protection<sup>3</sup>. They affect normal physiology and are harmful to health. Chemicals are transmitted into the bloodstream more easily absorb through oily solution than powder form. Over the past 50 years increase in cosmetic use had a direct link with the increase in endocrine disorders like breast prostate and testicular cancers diabetes, obesity, and reproductive problems<sup>4</sup>.

*Ayurveda* Cosmetics are prepared from natural products and body responds well to them.

**Table 1** Properties of *Panchgavya* ingredients<sup>10, 11, 12, 13, 14, 15</sup>

S. N.	<i>Panchgavya</i> ingredients	<i>Rasa</i>	<i>Guna</i>	<i>Virya</i>	<i>Vipaka</i>	<i>Karma</i>	<i>Doshaghnata</i>
1	Cow milk	Madhur	Guru, Snigdha, Shita, Sara, mridu	Shita	Madhur	Rasayan, Varnya, Medhya, Balya, ojavardhak, Dhaturvardhak, Vishghna.	Vatanashak, Pittanashak Kaphavardhak
2	Cow curd	Madhur, Amla	Guru, Snigdha, Ushna, Ruksha	Ushna	Madhur, Amla	Deepan, Balya, Shukravardhak, Hridhya, Bhedak.	Vatanashak, Kaphanashak, Pittavardhak
3	Cow ghee	Madhur	Guru, Snigdha,	Shita	Madhur	Rasayana, Yogyahi,	Tridoshahara

Organic products are similar to body so deeply absorbed in the skin and improve normal function. Skin health depends on three *dhatu Rasa, Rakta* and *Mamsa*. Also *Bhajrak Pitta* and *Oja* are very important factors in skin appearance and glow<sup>5</sup>. Proper metabolism and blood circulation is also useful in skin health. *Panchgavya* ingredients are *Rasayana, Dhaturvardhak, Ojavardhak* quality. The Nutricosmetics are products that act as nutritional supplements to protect skin and hair beauty. They work after eating and drinking within the body<sup>6</sup>. Cow milk and its derived are high nutritional value and bear the same qualities of *Oja*. Also they are *Varnya*, increase blood circulation; improve digestion, blood purifier and moisturizing body. Cow urine and dung are used in cleansers, scrubs and mask for the body. They reduce infection and improve blood circulation<sup>7,8,9</sup>.

## MATERIALS AND METHODS

Sufficient literature survey has been done to review the updated information on *Panchgavya* ingredients including their benefits as cosmetics. Properties of *panchgavya* ingredients mentioned in **table no. 1**.

## REVIEW ARTICLE

		Shita			Vishghna, Hridhya, Vrnaya, Netrya, ojavardhak		
4	<b>Cow urine</b>	Katu, Tikta, Kashaya	Tikshna, Ushna, Laghu	Ushna	Katu	Medhya, Bhedan, Chhedan, Mutral.	Kaphanashak, Vatanashak, Pittavardhak
5	<b>Cow dung</b>	Tikta, Kashaya	Laghu	Shita	Katu	Krimighna, Tvcharogahara.	Pittavardhak, Vatavardhak

### Cow Milk-

It contains lactose, fat, minerals, proteins (casein), rich fatty acid, calcium, potassium, phospholipids, vitamins A, B, and K, and water 86%. It has antimicrobial, antibacterial, antifungal, and anticancer activity. Vitamin A helps in the improvement of eyesight and vitamin K helps regulate blood clotting procedures and anti-aging activity<sup>16</sup>.

It has anti-inflammatory properties so reduces redness and inflammation caused by sun rays and UV rays. Milk products are commonly used for skin diseases because they have moisturizing, protecting, toning, soothing, whitening, anti-irritation, and anti-aging effects. Also, milk has good healing properties and promotes tissue regeneration. Milk powder is used in Indian facemask preparation due to its soothing and emollient properties. Their vitamins are the best substitute for the chemical base and emollients<sup>17</sup>.

### Cow Curd –

It has high nutritional value because it is prepared by fermenting cow milk using a microorganism-rich source of probiotics. Curd contains several nutrients and micronutrients including water, fatty acids, proteins, vitamins A, B, D, and E, and Minerals like calcium, potassium, magnesium, zinc, etc<sup>18</sup>. Curd probiotics improve gut health and boost the immune system. Lactic acid with

nutrients helps the skin as a moisturizer, and toner, tightening skin pores, nourishing, soothing, and healing.

It removes dry and dead epithelial cells and provides skin smooth appearance. Skin dryness caused by free radicals also prevents by the antioxidant, hydrated, and healing effects of vitamin B. Calcium promotes the healing of dry skin and helps cell regeneration. Curd helps the skin through its anti-inflammatory, blood purifier, antifungal, antioxidant, moisturizer, and healing effect. Curd is used in the treatment of the blood-related problem, acne, dark circles, itching, hair fall, and dandruff. It is used topically to improve skin and hair health<sup>19</sup>.

### Cow ghee -

It is also derived from cow milk from various processes so more important than cow milk. Ghee contains saturated and unsaturated fatty acids, omega-3 and 6 fatty acids, vitamins A, D, and E, calcium, and many nutrients<sup>(20)</sup>. It is known as Amrita in our *Samhita* because it removes toxins from the body and works as an antioxidant and immune-modulator. It acts as a good blood purifier to promote skin health and provide glowing skin free from impurities also improves skin texture. Ghee has anti-aging, anticholinergic, wound healing, liver protecting, and immune-stimulation property. It works as a

## REVIEW ARTICLE

natural and organic moisturizer. *Shatadhauta ghrita* is the best soft cream for the skin. Also, it is used for dark circles, cracked lips and ankles, scars and pigmentation, hair problems, and as a sedative<sup>21</sup>.

### Cow urine –

It contains 95% water, 2.5% urea, minerals and salt, 2.5% hormone and enzymes, calcium, potassium, sodium, vitamins, carbonic acid, and other trace elements<sup>22</sup>. Cow urine inhibits the growth of microorganisms showing antibacterial, antifungal, antiviral, and anti-helminthic effects. It has analgesic properties due to the presence of steroidal constituents and volatile fatty acids. It prevents free radical formation so reduces early aging and improves immunity due to the presents of *swarnkshar* (aurum hydroxide). It has a potent bio-enhancer, wound healing effect, best appetizer, skin tone, and diuretic and pest repellent properties. It is used for skin and nail problem, hair problems, and early wound healing<sup>23</sup>. Cow urine therapeutic use in *Samhita* is *krimiroga, kushta, kandu, shoola, gulma, udararoga, anaha, shotha, pandu, kamala, vasti roga, kasa, shavasa, atisara, mutra roga* etc<sup>24</sup>.

### Cow dung –

It is an indigestible material from the intestine of a cow released onto the ground. It contains several beneficial microbes like candida, bacillus, lactobacillus, etc., and minerals, vitamins, potassium, nitrogen, oxygen, carbon, cellulose, mucous, lignin, etc<sup>25</sup>.

In fresh form, it destroys germs and bacteria and heals wounds. In dry form is best to scrub to remove dead skin and improve blood circulation. It has antibacterial, antifungal, cleansing, skin tonic, and excellent disinfectant property. It is used in boil, heat rashes, psoriasis, eczema, tooth problem, and mosquito repellent. Its ash is used as toothpowder to strengthen gum and clean teeth. Dry ash absorbed oil and fat easily and work as a cleansing agent<sup>26</sup>.

## RESULTS & DISCUSSION

Cosmetics are products applied to the body to beautify, cleanse, or improve the appearance and enhance attractive features. Cosmetics products have toxic materials and various chemicals more than acceptable limits so they cause harmful effects on the skin. Ayurveda has related to natural products used for cosmetics preparation. Their best benefit is that they are biologically active ingredients easily absorbed into a deeper layer of skin and increase cell regeneration. According to Ayurveda skin appearance depends on *Rasa, Rakta, Mamsa dhatu, Pitta dosha*, and *oja*. *Rasa dhatu* supports all the body tissue, *Rakta dhatu* detoxifies the skin and increases glow and *Mamsa dhatu* provides firmness to the skin. The drug having *vaysthapana, varnya, varnaropana, twachya, sothahara, sandhaniya* properties are beneficial for cosmetic purposes. *Panchgavya* is the combination of five ingredients obtained from a cow. In *Ayurveda*, *Panchgavya* treatment is known as cow-pathy<sup>27</sup>.

## REVIEW ARTICLE

*Panchgavya* is rich in nitrogen, sulfur, phosphorus, sodium, carbolic acid, succinic acid and citric acid, iron, silicon, chlorine, magnesium, calcium salts, vitamins A, B, C, D, and E, minerals, and hormones<sup>28</sup>. *Panchgavya* represents *panchmahabhuta* in his five elements such as cow milk as *Jala*, cow curd as *Akasha*, cow ghee as *Agni*, cow urine as *Vayu* and cow dung as *Prithavi Mahabhuta*<sup>29</sup>.

All five elements have antimicrobial, antifungal, antioxidant, blood purifier, increase blood circulation, skin toning, and toxins removing qualities so they are the best ingredients for cosmetic preparation. These ingredients use skin diseases, restore immunity, fight cancer, and combat microorganisms. Also according to *ayurveda* use of cosmetics not only increases external beauty but also achieves long life with good health and happiness. They all have *Rasayana* and *Ojavardhak* properties which complete both desires for long life. They work on neurons to calm them and induced relaxation. Beauty represents to person's physical, mental and spiritual happiness.

## CONCLUSION

*Panchgavya* is the combination of five materials obtained from cows three direct like cow milk, cow urine, and cow dung, and two are derived like cow ghee, and cow curd. It is used in cosmetics as a natural ingredient so it increased the interest of consumers affected by harmful chemical-made cosmetics. All five elements have

qualities that are ideal for cosmetic preparation. Also, cow milk, curd, and ghee are of high nutritional value because they were rich in Protein, Vitamins, minerals, enzymes, and trace elements. Vitamin and mineral-rich extracts benefit the skin by increasing blood flow and restoring damaged capillaries. Nutri-cosmetic is used for nutritional cosmetic and relate to eating and drinking products in coordination with the usual skin routine for better results. *Panchgavya* is better Nutri-cosmetic nowadays.

## REVIEW ARTICLE

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## REVIEW ARTICLE

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