



The probability of advance fortune of cosmetology on doctrines of *Ayurveda* – the ancient science of life with beauty

G C Nille^{a,*+}, A K Chaudhary^a & S J Rajmane^b

^aDepartment of Rasa Shastra & Bhaishjya Kalpana, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India

^bAyurveda Physician, Varanasi-221005, Uttar Pradesh, India

E-mail: ⁺drguruprasadnille0412@gmail.com

Received 21 May 2019; revised 06 October 2020

Though the science of natural cosmetics has been known since ancient times, the recent emergence of cosmeceuticals touts a new approach to health through beauty. *Ayurvedic* physicians need to articulate the science of beauty as a chapter in its science of health. *Ayurvedic* anatomy of skin and concepts of treatment successfully demonstrate the ability of *vaidyas* to prescribe botanical and minerals treatments that restore health to the tissues of the body and thereby restore the glow and resilience of *Ojas* that is natural beauty. *Ayurveda* not only advocates superficial makeup and cosmetics but also it nourishes the mind and body with different treatment principles for the reflection of healthy status of a skin. In the present review article, the author has reviewed all the details about the *Ayurvedic* cosmetology through the classical texts and different published scientific work.

Key words: *Ayurveda*, Beauty, Cosmetology, Cosmeceuticals, *Ojas*

IPC Code: Int. Cl.²⁰: A61K 36/00

The term “cosmetics” refers to any article intended to be rubbed, poured, sprinkled or sprayed on, or introduced into, or otherwise applied to, the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, and includes any article intended for use as a component of cosmetic¹. The science of natural cosmetics has been known since ancient times. Pastes, oils, and ointments of turmeric, sandalwood, yogurt, were commonly used to enhance the beauty and allure of faces and skin. Some applications were ritualized for special occasions such as marriage or festivals. Other applications were for the elite and ruling class who could afford to spend hours on the cosmetic procedures. Still others were specifically designed for rehabilitation or medicinal purposes. The routines were part of daily prescriptions (*dinacharya*), seasonal prescriptions (*rutucharya*), night rituals (*ratricharya*), aphrodisiac rituals (*vajikarana*), and peripartum period health (*prasuti tantra*). These can be seen in ancient paintings, described in dances, songs, poetry and books, and are detailed in the *Ayurvedic* classic texts. The *Ayurvedic* natural

cosmetics industry is currently growing at 15-20% per year, much higher than India’s overall chemical cosmetics trade, with its growth rate of 7-8%². The *Ayurvedic* products market accounts for around 7% penetration in India’s cosmeceutical, cosmetics & personal care market³.

Ayurvedic natural cosmetics have three aspects. First, the products of *Ayurveda* focus on botanical or mineral parts that are of recent origin from the living earth. They are not synthesized from inert chemicals but rather extracted or hand-processed from natural surroundings and are more effective when they come from closer to an earth connection. Second, all authentic *Ayurvedic* prescriptions are given specifically according to an individual’s *doshas* (constitutional composition), *dhatu*s (physical body tissues), and *dushti* (tendencies toward particular pathologies). Third, *Ayurvedic* products are generally tailored to specific use according to the seasons, geoclimate, and lunar and solar cycles of the earth.

The concept of cosmetics in *Ayurveda* is totally different than contemporary science. *Ayurveda* has more emphasized on balancing the internal and external harmony between body and mind to explore real beauty.

*Corresponding Author

Ayurvedic Tvacha sharir (The anatomy of skin)

Considered a master anatomist, *Acharya Sushruta* described the macroscopic and subtle body in great detail in the *Sushruta Samhita*. He detailed seven layers of skin, of which the first layer, called *Avabhasini*, is responsible for appearance and skin complexion. The seven layers correspond to health in the seven intercalated layers of body tissue. Illness in the body reflects in the corresponding layer of skin⁴. The proposed correlations between *Tvacha sharira* and anatomy of skin have mentioned in Figure 1.

Modern anatomy describes the first three layers of skin (stratum corneum, stratum lucidum, and stratum granulosum) as transparent. The fourth skin layer (malpighian) is the deepest layer of epidermis and contains melanin pigments responsible for the color of skin. A model of correlation between the *Ayurvedic tvacha sharira* and modern skin anatomy is proposed in Table 1.

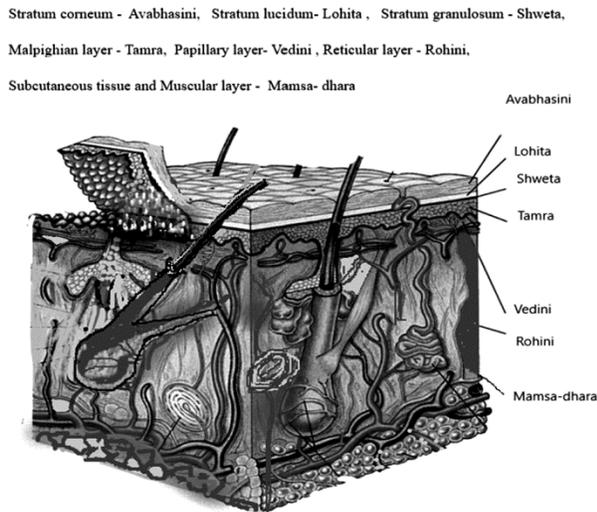


Fig. 1 — Proposed correlations between *Tvacha sharira* and anatomy of skin

Table 1 — Possible relation between *Tvacha sharira* and anatomy of skin⁴

S. No.	Name of Tvacha (Skin layer)	Modern Skin layer	Diseases of Tvacha
1.	Avabhasini	Stratum corneum	Sidhma (psoriasis), Padmakantaka (papilloma)
2.	Lohita	Stratum lucidum	Tilakalaka (flat navi), Nyachchha (congenital hyperpigmentation), Vyanga (malasma)
3.	Shweta	Stratum granulosum	Charmadala (impetigo), Mashaka (elevated nevi), Ajagallika (papule)
4.	Tamra	Malpighian layer	Kilasa (vitiligo), Kushtha (leprosy)
5.	Vedini	Papillary layer	Kushtha (leprosy), Visarpa (herpes zoster)
6.	Rohini	Reticular layer	Granthi (cystic swelling), Arbuda (tumor), Apachi (scrofula)
7.	Mamsa-dhara	Subcutaneous tissue and Muscular layer	Bhagandara (fistula), Vidradhi (internal abscess), Arsha (piles)

Functions of different Twacha and contemporary skin layers

The first layer *Avabhasini* reflects the health of the individual and also maintains health of successive deeper layers and *rasadhātu*. The healthy texture of skin which illuminates all the shades depends on *Avabhasini*. The second layer *Lohita* supports the outer layer and indicates the quality of blood. *Shweta*, the third layer balances the color of the skin. *Tamra*, the fourth deeper layer protects upper layers. The fifth layer *Vedini* is responsible for sensation. The sixth layer *Rohini* plays role in healing and regeneration while *Mamsadhara*, the last seventh layer helps skin to appear firm and flexible⁴. The first modern skin layer Stratum corneum is the part of epidermis and it protects underlying tissue from infection, dehydration, chemical and mechanical stress⁵. The Stratum lucidum, the second layer and part of epidermis maintains the elasticity of the skin and makes the skin water proof⁶. Stratum granulosum, part of epidermis is at the transition of boundary between this layer and stratum corneum, the cells secrete lamellar bodies which contain lipids and proteins. This layer forms a hydrophobic barrier and has protective function⁵. The fourth papillary layer is the part of dermis and it contains connective tissue, blood capillaries and Meissner's corpuscles. It provides support, nourishment and deep sensation⁷. Reticular layer, the fifth layer is the part of dermis and it contains collagenous, elastic, reticular and protein fibers giving it strength and elasticity. This layer contains hair follicles, sebaceous glands, sweat glands, apocrine glands, lymph and blood vessels. The orientation of certain collagen fibers supports and nourishes this layer⁸. The last layer of skin which is nothing but hypodermis acts as an energy reserve⁹.

Physiological mechanism of Lepas (Ayurvedic topical preparation)

The Sanskrit term *lepa* means to cover, to protect, and to adhere. In Ayurveda, *lepa* is a dosage form for

topical delivery of medicine using either paste or poultice. Ayurveda understood thousands of years ago that medicines can be absorbed through the skin.

All *ahaara dravyas* & *aushadhi dravyas* must be fully transformed by the body's biological fires, *jatharagni*, *bhutagni* and *dhatvagni*, to reveal their nutritional and therapeutic effects, respectively. *Aushadhi dravyas* are administered by internal and external different routes of administration, depending on the disease and target organs and will eventually reach tissues. For internally administered *Aushadhi dravyas*, *Jatharagni* is the primary biological enzymatic system, by whose action they are digested, assimilated and passed over to the specific *Bhutagni* and *Dhatvagni* to act on them, according to their targeted action¹⁰.

Aushadhi dravyas applied externally for therapeutic purposes are also digested by fires to reveal the desired specific or systemic therapeutic result. Of the five major components (*Ranjaka*, *Sadhaka*, *Alochaka*, *Bhrajaka*, *Pachaka*) of *pitta dosha*, which governs specific functions and is the biological fuel for all types of *agni*. *Acharya Sushruta* mentions that *Bhrajaka Pitta* is located in the skin to metabolize all externally applied *aushadhi dravyas* for their required beauty action. As the largest organ of the human body, the skin is the target for a large number of *Saundarya Prasadaka Dravyas* (herbal cosmetics) mentioned in the classical texts that act through this vast network. These *dravyas* are therapeutically used to improve beauty directly by restoring *Ojas*, or by locally treating various skin disorders. Of the five components of *pitta dosha*, *Acharya Sushruta* has mentioned that the therapeutic activities of various *dravyas* used for *abhyanga*, *parisheka*, *avagaha*, and *lepana* are mediated or performed under the control of *Bhrajaka Pitta*. Even the complexion of the healthy skin depends upon *Bhrajaka Pitta*^{11,4}.

Topical drugs and percutaneous absorption of modern medicine

Topical drugs are proposed for external use. Topical dermatologic preparations such as sunscreens, keratolytic agents, antiseptics and anti-inflammatory agents are usually intended for localized action on one or more layers of the skin. The human skin is composed of different layers including epidermis, dermis and hypodermis. Its appendages include the sweat glands, sebaceous glands and hair follicles. The stratum corneum is the outermost desquamating, horny layer of skin, comprising about 15-20 rows of

flat, partially desiccated, dead, keratinized epidermal cells. The thickness of this layer ranges from 10-20 μm in different locations on the body, with the thickest layer on the palms of the hands and soles of the feet. The stratum corneum is the rate-limiting barrier to percutaneous drug transport. In fact, the stratum corneum is more formidable as a barrier to drug transport than the epithelial barriers of other tissues, which provide easy delivery routes¹².

The transportation of hydrophilic molecules across the stratum corneum is difficult and generally attributed to its lipid-rich nature and low water content. The transportation of drugs by their dissolution into intercellular lipids around the cells of the stratum corneum depends on their lipophilicity. So most topically effective drugs are at least somewhat lipophilic. Absorption of hydrophilic molecules into skin can occur through pores or openings of the hair follicles and sebaceous glands, but the relative surface area of these openings is barely 1% of the total skin surface. According to modern pharmacology, drug absorption into the skin occurs by passive diffusion. The chemical nature and ability of drugs to absorb either into lipids or water affects their penetration through the layers. The percutaneous absorption of drugs depends on their concentration, lipophilicity and molecular size¹³.

The factors underlying natural beauty

The *Ayurvedic* concept of beauty is optimal health through harmony of the *dosha*, *agnis*, *dhatu*, *mala*, *mana*, *atma*, *indriya* and *sharira* as a whole in his environment. This is then reflected through the person's movements, use of senses to engage the world, excretions of the body such as hair and nails, complexion, and the quality of the skin. Usually, we notice a person first through the appearance of skin. The texture of the skin, its glow, consistency and color reflect health. These factors are affected by external medications and most substances that interact with it, including heat, wind, sun, water, mud. In most parts of the world still today the color of the skin is a primary criterion for defining beauty. Yet, apart from color, so many other parameters of skin provide the actual basis for remarking it is healthy, gleaming, radiant, lustrous, and glossy. The beauty of the skin is affected by daily dietary habits, work stress, internal harmony and peace of mind, the presence of acute or chronic illness, changing environmental factors such as pollution and seasonal variations, and use of improper or hazardous cosmoceutical ingredients or products. In Ayurveda, the skin is one of the best

tools used by ancient scholars to judge a disturbed internal physiology¹⁴. There are many factors which are responsible for *varna* (color) and *prabha* (complexion) of the skin and which have been mentioned in the Table 2.

Ayurvedic pathology behind skin diseases (Kushtha)

In Ayurveda, various etiological factors causing skin diseases have been mentioned elaborately. Among all the causative factors unwholesome diet is considered as the main pathological factor behind different skin ailments. The unwholesome diet leads to vitiation of all the three *dosha* and formation of toxins within the body. Ultimately, these toxins cause pathological changes in the normal functioning of the blood, skin and related structures. The diseased skin represents itself with different skin lesions depending on ratios and severity of vitiated *dosha*¹⁰. The *Ayurvedic* pathology behind skin diseases has been depicted in Figure 2.

Classic references detailing Lepas

Several ancient scholars of Ayurveda have contributed to the science of *lepas*. In their classic texts, each mentions different types of *lepas*, different components according to their native places, and the uses of *lepas* on the basis of drugs used, method of preparation, mode of administration, and specific conditions for usage.

Types of Lepas

Acharya Sushruta named three varieties of *lepa*. He classified them according to the heat they produced on the body in accordance with the inherent nature of *veerya* in the plants used. These inherent properties (*gunas*) of each plant determine their effect

on the *doshas* of the body on which they are applied. He described that *lepa*s should always be applied in the direction opposing the growth of hair. The force of application lifts the hairs and allows more of the drug to be absorbed through small spaces surrounding the hair roots and follicles, sweat glands, and make their way down to the capillaries. *Acharya Sushruta*'s classification of *Lepa* has been mentioned in Table 3.

Acharya Sharangadhara classified *lepa* on the basis of raw materials used for *lepa* preparation, thickness of application of the paste and *doshic* action. He also details the parameters of *pralepa*, *pradeha*, and *alepa* given by *Sushruta*. He discusses the action of specific *lepas* for specific conditions such as scrofula, goitre, adenomas, filariasis, infectious ulcers, burns, pain, sciatica and other diseases of *vata*¹⁶. All the details have been mentioned in the Table 4.

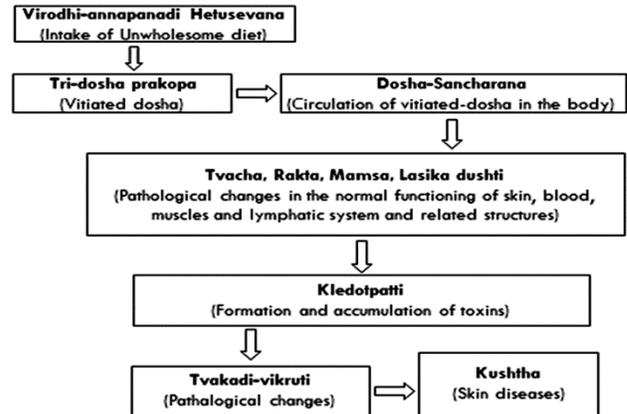


Fig. 2 — Flow diagram clarifying the *Ayurvedic* pathology behind skin diseases

Table 2 — Connection of skin appearance to internal physiology^{4,10,15}

S. No	Factor	Responsible for	Reference
1.	Ahar, Dehagni	Varna (skin colour), Prabha (skin complexion)	Ch.Chi.15/2
2.	Panchamahabhuta	Varnotpatti (natural skin colour)	Su. Sha. 2/37
3.	Udan Vayu	Varna (skin colour)	Ch.Chi.28/7, A.H.Su.12/5
4.	Pitta dosha	Prakrita Varna (natural skin colour)	Ch.Su.12/11
5.	Pitta dosha	Prabha (skin complexion)	Ch.Su.18/50, A.H.Su.11/3
6.	Rasa/Twakasarata	Prabha (skin complexion)	Ch.Vi.8/103
7.	Rakta Dhatu	Varna (skin colour)	Ch.Su.24/3
8.	Rakta Dhatu	Varna Prasad (even skin tone)	Su.Su.15/7
9.	Vishuddharakta Purush	Prasanna Varna (even skin tone)	Ch.Su.24/24
10.	Shukrasarata	Prasanna Snigdha Varna (glowing skin tone)	Ch.Vi.8/109
11.	Prakrita Oja	Varna Prasad	Su.Su.15/25
12.	Trayopstambha	Varna (skin colour)	Ch.Su. 11/35
13.	Prakrita Nidra	Varna (skin colour)	Su.Sha.4/39

(Ch.Su.- Charaka Samhita Sutrasthana, Ch.Vi.- Charaka Samhita Vimansthana, Ch.Chi.- Charaka Samhita Chikitsasthana, Su.Su.- Sushruta Samhita Sutrasthana, Su. Sha. – Sushruta Samhita Sharirasthana, A.H.Su. – Asthangahridaya Sutrasthana)

Table 3 — Sushruta's Classification of Lepa based on veerya⁴

S. No.	Name	Method of preparation	Indication(s)
1.	Pralepa	Sheeta, prepared with dravyas having sheeta veerya, applied cold as a Tanu (thin) lepa.	Pitta-pradhan Twaka-vikara
2.	Pradeha	Ushna, prepared with dravyas having ushna veerya, applied as a Bahula (thick) lepa.	Vata-kapha pradhan Twaka-vikara
3.	Alepa	Moderate in properties compared to pralepa and pradeha varieties	Rakta and pittaja Twaka-vikara

Table 4 — Sharangadhara's Classification of Lepa Based on Raw Materials¹⁶

S. No.	Name	Thickness	Method of Preparation	Indication
1.	Doshaghna	¼ anguli	Prepared by finely powdering punarnava (<i>Boerhavia diffusa</i> Linn.), daruharidra (<i>Berberis aristata</i> DC.), shunthi (<i>Zingiber officinale</i> Rosc.), sarsapa (<i>Brassica campestris</i> Linn.), and sigru bija (<i>Moringa oleifera</i> Lam.) separately, then mixing together, then preserved. While using, mix with aranala (fermented gruel) and apply.	Shotha (inflammation)
2.	Vishaghna	1/3 anguli	Prepared by pounding shirish (<i>Albizia lebbek</i> Benth.), yastimadhu (<i>Glycyrrhiza glabra</i> Linn.), tagara (<i>Valeriana wallichii</i> DC.), chandana (<i>Santalum album</i> Linn.), ela (<i>Elettaria cardamomum</i> Maton.), jatamansi (<i>Nordostachys jatamansi</i> DC.), haridra (<i>Curcuma longa</i>), daruharidra (<i>Berberis aristata</i> DC.), bala (<i>Sida cordifolia</i> Linn.), kushtha (<i>Saussurea lappa</i> C.B. Clarke), and ghrita (cow milk butter), each in equal parts, into fine powder, then preserved. While using, mix with ghee and water to make paste; apply in pratiloma gati.	Jwara (fever), Shotha (inflammation), Visarpa (erysipelas/Herpes Zoster), Kushtha (Skin Diseases)
3.	Varnya	½ anguli	Prepared by pounding rakta chandana (<i>Pterocarpus santalinus</i> Linn.), manjishtha (<i>Rubia cordifolia</i> Linn.), lodhra (<i>Symplocos racemosa</i> Roxb.), kushtha (<i>Saussurea lappa</i> C.B. Clarke), priyangu (<i>Callicarpa macrophylla</i> Vahl.), vatankura (<i>Ficus bengalensis</i> Linn.) and masura dal (<i>Lens culinaris</i>).	Vyanga (Melasma), To improve color and complexion

Role of Shodhana (Biological purification) / Panchakarma

Rakta mokshana (Therapeutic bloodletting)

According to *Ayurveda*, vitiated *doshas* spoil the *raktadhatu* that becomes a root cause in almost all of the skin disorders. *Acharya Charaka* has mentioned the list of skin diseases caused by impure blood (*raktadhatupradoshaja vikara*). They are *Kushtha* (all skin diseases), *Visarpa* (herpes zoster), *Pidaka* (acne vulgaris), *Neelika* (nevus of Ota), *Vyanga* (melasma), *Piplava* (moles), *Tilakalaka* (flat nevi), *Dadru* (ringworm), *Charmadala* (impetigo), *Shwitra* (vitiligo), *Pama* (scabies), *Kotha* (urticaria), and *Asramandala* (red circular patches). He has also quoted the normal functioning of pure blood as '*Balavarnasukhayusha*'¹⁰. *Raktamokshana* (bloodletting) in the form of *Jalaukavacharana* (leech therapy) and *Siravedhana* (venesection or phlebotomy) can pacify the vitiated *doshas* effectively and result in the correction of skin disorders listed above.

Virechana (Purgation therapy)

Virechana detoxifies the impure blood by regulating the vitiated *Pitta* and *Kapha doshas*, responsible for the various skin diseases. *Acharya Vagbhata* has indicated *Virechana* for the patient of

the *Kushtha* (skin diseases) and *Vyanga* (melasma)¹⁵. *Acharya Charaka* has also quoted about the benefits of *Virechana* as '*Malapaham Rogaharam Balavarnaprasadana*'¹⁰. The *Asraya Asraye* relationship (dependence on each other) of *Pitta* and *Raktadhatu* can explain the importance of *Virechana* while treating the *Raktavikaras* (skin disorders). *Virechana* corrects the harmony in between vitiated *doshas* and the blood and recovers the normal beauty of the skin.

Vamana (Therapeutic emesis)

Vamana (therapeutic emesis) has been advised for vitiated *Kapha dosha* related skin disorders in *Ayurveda*. *Kapha dosha* plays a dominant role in obstructive pathological conditions of *Strotasa* (body channels) that may hamper or block the secretion of skin glands such as sweat and sebaceous glands. Furthermore, pathological obstruction of these glands results in various skin problems like *Kandu* (itching), *Twakarukshata* (dry skin), *Shopha* (glandular swelling), *Swedabhava* (no sweat), etc. *Acharya Charaka* has described various safe herbal drugs and formulations for therapeutic emesis. *Madanaphala* (*Randia dumetorum*) is the best *Vamaka dravya* (emetic drug) while the *Krutavedhana* (*Luffa*

acutangula) and *Jeemutaka* (*Luffa echinata*) have been indicated to treat various skin disorders in *Ayurveda*¹⁰.

Nasya (Nasal administration)

Nasya karma (administration of medicine through the nose) is useful to pacify the vitiated *doshas* involved in *Urdhvajatrugat vikara* (disease entities of the neck, face, and head region). *Acharya Vagbhata* has described different types of *Nasya*. *Shamana Nasya* is one of them. It is indicated in *Neelika* (nevus of Ota), *Vyanga* (melasma), *Keshadosha* (premature greying and hair fall) like diseases that principally defeat the beauty¹⁵.

Abhyanga (Oleation therapy)

Acharya Vagbhata and *Acharya Charaka* have mentioned the beauty benefits of *Abhyangam*. *Acharya Charaka* has quoted *Abhyangam* as '*Twachyashcha Paramo Abhyangaha*'¹⁰ which means, it is the most effective practice for the healthy and radiant skin. Also, *Acharya Vagbhata* has mentioned the benefit of *Abhyangam* as '*Sutwakadardhyakrita*'¹⁵. The daily practice of *Abhyangam* improves the strength of the skin and makes it more beautiful.

Udvardhana (Massage therapy)

Acharya Vagbhata and *Acharya Sushruta* have mentioned the beauty facts of the *Udvardhana*. According to them, the practice of *Udvardhana* results in '*Twakaprasadakaram Param*' (healthy, beautiful, and well-toned skin)^{15,4}. *Acharya Sushruta* has

emphasized the use of the *Udvardhana* (*Ustadana*) in females mentioning its benefits as '*Ustadanad Bhaveta Strinam Visheshat Kantimad Vapuha*'⁴. *Udvardhana* provides smoothness to skin and improves the complexion of the skin.

Murdha Taila (Application of medicated oil over head)

According to *Acharya Vagbhata*, the *Murdha Taila* includes *Shiroabhyangam*, *Shirodhara*, *Shiropichu*, and *Shirobasti*¹⁵. *Acharya Charaka* has mentioned the advantages of the practice of *Murdha Taila* as '*Na Khalityam Na Palityam Na Keshaha Prapatanti Cha*', which means *Murdha taila* prevents immature graying of hairs and hair fall. Also, according to *Charaka*, the skin of the face becomes soft and beautiful as per the quotation '*Sutwagbhavati Chaamlam*'¹⁰.

The methods of application of aforementioned procedures and their therapeutic indications and uses have depicted in Figure 3.

Proven cosmetics with clinical evidences

Several clinical studies prove the therapeutic efficacy of *lepas* and the role of the *panchakarma* in treating various skin disorders. The name of the formulation and the *panchakarma* used in the different dermatological conditions and their clinical outcomes are mentioned in Table 5.

The most elaborate of the ancient scholars of *Ayurveda* that mentioned herbs that were both nutritive and cosmetic was *Acharya Charaka*. In his



Fig. 3 — Pictorial representation of techniques used in *Ayurvedic* Cosmetology

Table 5 — Clinical studies proving therapeutic efficacy of different Lepas and Panchakarma¹⁷⁻⁴⁹

S. No.	Lepa Formulation and Panchakarma	Ayurvedic Dermatologic Condition	Conclusion(s) of study
1.	Edagajadi Lepa	Dadru (Ringworm)	The efficacy of the treatment was highly significant without any adverse reaction to drug ¹⁷
2.	Shirisha Twaka Lepa	Dadru (Ringworm)	An effective treatment modality which can be used in the management of <i>Dadru</i> ¹⁸
3.	Varnya Gana Lepa	Vyanga (Melasma)	An effective formulation in <i>Vyanga</i> and shows statistically highly significant improvement in the MASI scores by reducing the darkness parameter along with subjective parameters such as itching and burning sensation ¹⁹
4.	Svitrahara Lepa	Shvitra (Vitiligo)	Significant pigment regenerating capacity ²⁰
5.	Aparajitha Lepa with Dhatryadi Kwatha	Shvitra (Vitiligo)	Repigmentation was seen in overall of 42.49%, Considerable improvement in <i>Romavivarnatha</i> (repigmentation) (69.84%) is observed, <i>Kandu</i> (itching) and <i>Twakrukshata</i> (dryness of skin) has a result of 74.07% and 55.22% respectively. <i>Daha</i> (burning sensation) symptom which was seen in two persons has been relieved completely ²¹
6.	Arjuna Twak Lepa along with Panchanimba Churna	Vyanga (Melasma)	Provided better results in hyperpigmentation of the patches ²²
7.	Yavadi Lepa	Mukhadushika (Acne vulgaris)	Reduced <i>Daha</i> (burning sensation), <i>Kandu</i> (itching), <i>Shool</i> (pain), <i>Srava</i> (secretions), <i>Vaivarnya</i> (dyspigmentation) present in <i>Mukhadushika</i> ²³
8.	Pracchanna followed by Bhringaraja Lepa	Khalitya (Hair loss)	Very significant effect in pacifying <i>Khalitya</i> ²⁴
9.	Aragwadhadhi Lepa	Vicharchika (Eczema)	Significant reduction in <i>Kandu</i> (itching), <i>Srava</i> (secretions), <i>Pidikotpatti</i> (boils), <i>Rukshata</i> (dryness), <i>Vaivarnyata</i> (dyspigmentation) and <i>Daha</i> (burning sensation) ²⁵
10.	Chandanadi Lepa	Paduka Visha (Allergic Contact Dermatitis)	Highly significant in the management of footwear dermatitis ²⁶
11.	Kumkumadi Cream	Vyanga (Melasma)	Significant improvement in moisture content of skin, size and colour of lesion, itching and burning sensation of lesion ²⁷
12.	Dhatryadhyo lepa with Navayasa Rasayana leha and Medhya Rasayana	Eka Kushtha (Psoriasis)	Good results were observed in terms of Dermatology life quality index and Psoriasis disability index ²⁸
13.	Apamarga Kshara Yoga Lepa	Shvitra (Vitiligo)	Significant improvement in symptoms of <i>Shvitra</i> ²⁹
14.	Aragwadha Patra Lepa with Virechana	Vicharchika (Eczema)	Effective control in itching, discharge, burning sensation, eruption, discoloration, pain and edema symptoms of <i>Vicharchika</i> ³⁰
15.	Rakta Snuhi Ksheera Gel	Padadari (Cracked feet)	Highly significant results in symptoms such as pain, dryness and <i>kandu</i> (itching) ³¹
16.	Virechana	Vicharchika (Eczema)	The cure rate found increased and no recurrence was found ³²
17.	Jalaukavacharana	Vicharchika (Eczema)	Statistically high significance (P<0.001) was observed in the symptom like <i>Kandu</i> (itching), <i>Pidika</i> (boils), <i>Raktima</i> (redness), and <i>Daha</i> (burning sense) ³³
18.	Vamana and Virechana	Mandal kustha (Psoriasis)	Significant result was found in all the groups ³⁴
19.	Vamana and Virechana	Psoriasis	A time dependent improvement was observed in patients with the sign and symptoms of Psoriasis ³⁵
20.	Vamana and Virechana	Mandal kustha (Psoriasis)	Effective control of erythema of leg and arm; induration of leg, torso, arm, and head; scales of leg, torso, and head; coverage area of torso and arm were observed ³⁶
21.	Vamana and Virechana	Ekakushtha (Psoriasis)	Highly significant results were found in Group A (Vamana group) & Group B (Virechana group) ³⁷
22.	Vamana	Ekakushtha (Psoriasis)	<i>Krutavedhana</i> showed better relief in <i>Matsyashakalopam</i> (scaly skin), <i>Kandu</i> (itching), and <i>Rukshata</i> (dryness), while <i>Madanphala</i> showed better relief in <i>Krishn Aruna Varna</i> (discoloration) ³⁸

(Contd.)

Table 5 — Clinical studies proving therapeutic efficacy of different Lepas and Panchakarma¹⁷⁻⁴⁹ (Contd.)

S. No.	Lepa Formulation and Panchakarma	Ayurvedic Dermatologic Condition	Conclusion(s) of study
23.	Vamana	Psoriasis	Significant relief was found in parameters of psoriasis such as scaling, itching, candle grease sign (P < 0.001), and psoriasis area and severity index score (P = 0.001) ³⁹
24.	Vamana and Virechana	Skin disorders	A statistically significant improvement was observed in the quality of life domains, emotions, functioning, and symptoms after the Ayurvedic management (P <.001) ⁴⁰
25.	Virechana	Ekakushtha (Psoriasis)	<i>Virechana Purvaka Shamana</i> was found more effective than only <i>Shamana</i> ⁴¹
26.	Virechana	Visphotaka (Pemphigus vulgaris)	Eruptions were totally reduced after <i>Virechana</i> ⁴²
27.	Virechana	Vicharchika (Eczema)	Remarkable relief from all symptoms after treatment ⁴³
28.	Jalaukavacharana	Yuvanapidika (Acne vulgaris)	Complete relief was observed in 50% of the patients and moderate relief was noted in 40% of the patients ⁴⁴
29.	Jalaukavacharana	Ekakushtha (Psoriasis)	The treatment was found significantly effective ⁴⁵
30.	Jalaukavacharana	Neelika (Nevus of Ota)	Substantial reduction in pigmentation ⁴⁶
31.	Jalaukavacharana	Indralupta (Alopecia)	Effective hair growth was observed in affected area ⁴⁷
32.	Gotukola Nasya & Thiladilepa	Yuvanapidika (Acne vulgaris)	Pain, <i>Pidaka</i> (acne), Ghana (hard on touch), <i>Medogarbha</i> (whiteheads), scars, papules, pustules, seborrhoea were partially relieved ⁴⁸
33.	Mundi Taila Nasya & Abhyantar sevana	Akalpalithyam (Premature greying of hair)	<i>Nasyakarma</i> along with <i>panakarma</i> of <i>Mundithailam</i> was found more effective in preventing as well as curing the problem ⁴⁹

generous list of ten herbs in each of 50 categories that can be delivered as decoctions to affect the body, known as the *Mahakashaya*, he details a range of nutricosmetics and anti-aging products of ancient times. *Acharya Charaka* mentions the *Varnya Mahakashaya*, *Kushthghna Mahakashaya*, and *Vayasthapaka Mahakashaya*. The *varnya* group is useful in improving color and complexion of the skin. The *kushthaghna* group is useful for skin diseases and dermatoses known as *kushtha*, one of the eight great diseases mentioned in the *Charaka Samhita*. The *vayasthapaka* group has herbs useful for anti-aging. *Charaka* also mentions a remedy administered by different routes for the complete cure of all skin disorders, '*Siddharthaka Snana*.' He advises taking medicated water baths for skin disorders after preparing several ingredients for the formulation. Also it is used externally as *lepa* (paste) as well as for *Udgharshana* (rubbing/cleansing therapy). Internally the same formulation is indicated for *Vamana* (emetic) and *Virechana* (purgation) to detoxify the body as well as for better effectiveness of other remedies. Such a wise plan of treatment to cure dermatological problems by our ancient scholars explains the importance of internal and external therapy in the management of skin disorders¹⁰.

Discussion

The personal care and cosmetics market in India has had consistent growth over the last decade, with

increasing shelf space in boutiques and retail stores across the country. The best examples are KAMA Ayurveda Online Ayurvedic Stores, Shahnaz Husain Group India, VLCC, KHADI Natural etc. Many multinational brands have entered the Indian market, primarily aided by dedicated support structure and their respective pricing strategies. The domestic market for personal care products is projected to grow at a CAGR of around 22% during the period 2017-2020. Moreover, the market will maintain healthy growth due to rising preference for specialized cosmetic products such as organic, herbal and Ayurvedic products. Principal areas that are expected to grow include color cosmetics, fragrances, specialized skin care, hair care and make-up cosmetics. Currently, India accounts for a share of just over 1% of total global personal care, cosmetics and cosmeceutical market. This share is anticipated to grow significantly over the next 5 years. The usage of Ayurvedic products is increasing both in developed as well as developing countries. The Ayurvedic products market accounts for around 7% penetration in India cosmeceutical, cosmetics & personal care market⁵⁰.

In Ayurveda, equal importance was given to both internal and external medications in the pure aspect of cosmeceutics. The present concept of 'Cosmotology' was existed at the time of *Acharya Charaka*. Also 'Beauty from within' cosmeceuticals in the market related to anti-aging product segment are becoming very popular. These ingestible products are

supposed to promote youthfulness by targeting and reversing ongoing physiological processes associated with aging².

Most of the skin diseases have chronic nature and are difficult to treat the entities due to their recurring or relapsing pattern. The long-term use of conventional medicines has drawbacks in terms of untoward effects and economic burden. Also, the on and off treatment of such chronic dermatological problems having relapsing nature may worsen the condition of both the disease and the patient's mental health. *Ayurvedic* principles of cosmetology, used in the different treatment procedures, help to treat the skin diseases safely and effectively by correcting the imbalance between the *doshas*. The *Shamana* and *Shodhana* treatment approach of *Ayurveda* results in the correction of the root cause and prevention of recurrence of the disease. The different treatment procedures described in the present article are more efficient, less hazardous, and cost-effective than modern available cosmetic procedures/techniques.

Beauty is not only the external appearance of a skin but also the reflection of harmony between healthy body and mind. *Ayurveda* has its own wide aspect behind the term beauty. Since Vedic period, importance has been given to the different therapies for the better look. Ancient scholars are very well known about the anatomy, physiology as well as pathology of Skin. The terms generally used in *Ayurveda* related to beauty are *Varna*, *Prabha*, *Kanti*, *Twachya*, *Twakaprasadana*. Various literatures are available showing the use of external as well as internal remedies for the maintenance of beauty. Including different *lepas* (external applications), *Ayurveda* has given equal importance to *Shodhana* and *Shamana* treatment in the maintenance of beauty. In *Ayurveda Prakriti*, *Dosha-samyata*, *Dhatu-samyata*, and healthy status of mind are considered as important factors to reflect natural beauty of an individual. In the present article author has reviewed the scope of beauty through *Ayurveda*.

Conclusion

The solo objective of this review article is to introduce the global citizen with the *Ayurvedic* concept of cosmetology. In this article we have tried to collect all information from deeper *Ayurveda* literature which may be explored by all stakeholders of cosmetology in service of human. *Shodhana* and *Shamana* therapy of *Ayurveda* may provide a complete package of cosmetology with the

preservation and promotion of health. Thus, authors invite scientist of cosmetology on *Ayurvedic* methodology for its more advanced applications without compromising *Ayurvedic* fundamentals.

Conflict of Interest

Authors declare that there are no conflicts of interest.

Author Contributions

GCN and SJR conceived the idea and wrote the article. GCN and AKC edited and proofread the document. The entire team approved the submission of the final article.

References

- 1 The drugs and cosmetics act and rules. The Ministry of Health and Family Welfare. The Government of India. Available on- <http://www.iracm.com/wp-content/uploads/2013/01/act-on-the-drugs-and-cosmetics-1940-3505.pdf>. Accessed on 13th April 2015.
- 2 Datta H S & Paramesh R, Trends in aging and skin care: *Ayurvedic* concepts, *J Ayurveda Integr Med*, 1 (2) (2010) 110-113.
- 3 [https://www.techsciresearch.com/admin/gall_content/2017/10/2017_10\\$thumbimg111_Oct_2017_092916623.pdf](https://www.techsciresearch.com/admin/gall_content/2017/10/2017_10$thumbimg111_Oct_2017_092916623.pdf) pg.19
- 4 Maharshi Sushruta, *Sushrutsamhita*, edited by Ambikadatta Shastri, Part I, *Sutra Stanam*, 15th Chapter, 7th, 25th *Sloka*, 18th Chapter, 6th to 16th *Sloka*, 21st Chapter, 10th *Sloka*, *Sharir Stanam*, 2nd Chapter, 37th *Sloka*, 4th Chapter, 4th, 39th *Sloka*, *Chikitsa Stanam*, 24th Chapter, 30th *Sloka*, reprint, 2010. Pg. 75, 79, 97, 115, 20, 37, 45, 133. Chaukhambha Sanskrit Sansthan, Varanasi.
- 5 Ovaere P, Lippens S, Vandenabeele P, *et al.*, The emerging roles of serine protease cascades in the epidermis, *Trends Biochem Sci*, 34 (2009) 453-63.
- 6 Human Anatomy; September, 2016, Available from: <http://www.knowyourbody.net/stratumlucidum.html>
- 7 October 2016. Available from: <http://microvet.arizona.edu/Courses/vsc422/secure/VSC422AppliedHistologyLabHandout.pdf>
- 8 Ross M & Pawlina W, *Histology: A text and atlas*, (Lippincott Williams & Wilkins, Philadelphia) 2011.
- 9 The Hypodermis; October 2016. Available from: http://skinscience.com/_int/_en/topic/topic_sousrub.aspx?tc=SKIN_SCIENCE_ROOT%5EAN_ORGAN_REVEALED%5ETHE_HYPODERMIS&cur=THE_HYPODERMIS.
- 10 Agnivesha, *Charaka Samhita*, edited by Kashinath Shastri, Part I, *Sutra Stanam*, 4th Chapter, 8th, 13th, 50th *Sloka*, 5th Chapter, 81st to 83rd, 86th *Sloka*, 11th Chapter, 35th *Sloka*, 12th Chapter, 11th *Sloka*, 15th Chapter, 22nd *Sloka*, 18th Chapter 50th *Sloka*, Chapter 24th, 3rd, 4th, 24th *Sloka*, Chapter 28th, 11th *Sloka*, *Vimana Stanam*, 8th Chapter, 103rd, 109th *Sloka* 2015. pg. 78, 81, 98, 127, 128, 227, 251, 317, 443, 571, 775, 777. Part II, *Chikitsa Stanam*, 7th Chapter, 92nd *Sloka*, 15th Chapter, 3rd to 35th *Sloka*, 28th Chapter, 7th *Sloka*, *Kalpa Stanam*, 6th Chapter, 4th *Sloka*, *Siddhi Stanam*, 11th Chapter, 12th *Sloka* 2015. Pg. 263, 452-458, 776, 914, 1085, Chaukhambha Bharati Academy, Varanasi.

- 11 Jain P C & Malviya P, *Sharirkriyavigyan*, Part I, 7th Chapter, 2003. Pg. 217. Chaukhamba Sanskrit Pratishthan, Delhi.
- 12 Viswanath V, *Concise Textbook of Dermatology*, (Wiley-Blackwell Publication, New Delhi), 2012, 372-373.
- 13 Wolverson S E, *Comprehensive Dermatologic Drug Therapy*, (Elsevier Publication) 2013, 9.
- 14 Anonymous, *Yogaratnakara*, edited by Asha Kumari and Premvati Tiwari, Part I, 1st Chapter, 35th Sloka, 1st ed. 2010. Pg.7. Chaukhamba Visvabharati, Varanasi.
- 15 Srimadvagbhata, *Ashangahridayam*, edited by Brahmanand Tripathi, *Sutra Stanam*, 2nd Chapter, 8th, 15th Sloka, 11th Chapter, 3rd Sloka, 12th Chapter, 5th Sloka, 18th Chapter, 8th to 10th Sloka, 20th Chapter, 4th Sloka, 22nd Chapter, 23rd Sloka, reprint, 2003. Pg. 29, 32, 160, 171, 220, 245, 260. Chaukhamba Sanskrit Pratishthan, Delhi.
- 16 Sharangadharaacharya, *Sharangadhara Samhita*, edited by Brahmanand Tripathi, Uttarkahand, 11th Chapter, 1st, 2nd Sloka, reprint, 2008. Pg. 391. Chaukhamba Surbharati Prakashana, Varanasi.
- 17 Deshmukh S, A Clinical Study of Edagajadi Lepa in the management of Dadru Kushta, *International Ayurvedic Medical Journal*, 3 (8) (2015) 2259-2264.
- 18 Abhilash P S, Ittoop J A, Sailekha P, *et al.*, Efficacy of Shirisha Twak Lepa in the management of Dadru, *International Ayurvedic Medical Journal*, 3 (8) (2015) 2265-2270.
- 19 Pallavi G & Gupta K L V, Shreevathsa M, Chate VA & Balakrishna DL, Clinical evaluation of Varnya Gana Lepa in Vyanga (melasma), *AYU*, 36(2) (2015) 151-156.
- 20 Dhanik A, Sujatha N & Rai N P, Clinical evaluation of the efficacy of Shvitrahara kashaya and lepa in vitiligo, *AYU*, 32 (1) (2011) 66-69.
- 21 Injamuri R & Mudadla S, A Clinical Study on the therapeutic effect of Dhatriyadi Kwatha & Aparajitha Lepa in Switrai in Children, *Int J Ayurveda Pharma Res*, 4 (6) (2016) 98-103.
- 22 Angadi S S & Gowda S T, Management of Vyanga (facial melanosis) with Arjuna Twak Lepa and Panchanimba Churna, *AYU*, 35 (1) (2014) 50-53.
- 23 Lad S, To study the efficacy of Yavadi Lepa in Mukhdushika, *IAMJ*, 1 (6) (2013) 176-179.
- 24 Bhavya B M, A study on efficacy of Prachanna and Bringaraja Lepa in the management of Khalitya (hair fall), *IAMJ*, 4 (8) (2016) 2463-2470.
- 25 Singh J P, Antiwal M & Tiwari S K, A Clinical evaluation of Argwadhadhi Lepa in the management of Vicharchika (Eczema), National Seminar on Management of Skin Diseases through Ayurveda, Rashtriya Ayurveda Vidhyapeeth, March 2011, New Delhi. Pg. 274-80.
- 26 Raneesh S, Benil P B & Latheef A, Randomized controlled trial on Chandanadi Lepa versus Triphala Lepa in Paduka Visha with special reference to Allergic Contact Dermatitis, National Seminar on Management of Skin Diseases through Ayurveda, Rashtriya Ayurveda Vidhyapeeth, March 2011, New Delhi. Pg. 308-14.
- 27 Sharma U, Singh P, Saxena G K, *et al.*, Comparative study of the relative efficacy of kumkumadi creams (with various water and oil phase) for their vyangahar effect, *Int J Ayur Pharma Res*, 5 (8) (2017) 43-48.
- 28 Mehta C S, Dave A R & Shukla V D, A clinical study of some Ayurvedic compound drugs in the assessment quality of life of patients with Eka Kushtha (psoriasis), *AYU*, 32 (3) (2011) 333-339.
- 29 Jadav H R, Galib R & Prajapati P K, Clinical efficacy of Apamarga Kshara Yoga in the management of Shvitra (vitiligo), *AYU*, 36 (2) (2015) 163-168.
- 30 Talekar M T, Mandal S K & Sharma R R, Clinical evaluation of Trivrta powder (*Operculina turpethum* Linn.) and Aragvadha Patra Lepa (paste of leaves of *Cassia fistula* Linn.) in the management of Vicharchika (eczema), *AYU*, 39 (1) (2018) 9-15.
- 31 Gupta S & Acharya R, Management of Padadari (cracked feet) with Rakta Snuhi (*Euphorbia caducifolia* Haines.) based formulation: An open-labeled clinical study, *AYU*, 39 (4) (2018) 208-212.
- 32 Kaur M & Chandola H, Role of Virechana Karma in cure and prevention of recurrence of Vicharchika (Eczema), *AYU*, 33 (4) (2012) 505-510.
- 33 Raval H N & Thakar A B, Role of Raktamokshana by Jalaukavacharana and Siravedhana in the management of Vicharchika (Eczema), *AYU*, 33 (1) (2012) 68-72.
- 34 Singh S K, Rajoria K, Insaan S P, *et al.*, A randomized open clinical study on the efficacy of Vamana karma, Virechana karma and Parisheka with Siddharthak Snanokta dravya in the management of Mandal kushta w.s.r. to psoriasis, *J Ayurveda*, XIII (2) (2019) 82 – 87.
- 35 Shamkuwar M K, Shrivastava Y K & Jaiswal L, Evaluation of Panchakarma as an Ayurvedic line of treatment in the management of psoriasis, *J Chem Pharm Res*, 3 (4) (2011) 17-21.
- 36 Mangal G, Mangal G & Sharma R S, Clinical efficacy of Shodhana Karma and Shamana Karma in Mandala Kushtha (Psoriasis), *AYU*, 32 (2) (2012) 224-229.
- 37 Parida A N, Bhatt N N, Dave A R, *et al.*, A Comparative Study of Vamana & Virechana karma in Ekakushtha w.s.r to Psoriasis, *AYU*, 30 (3) (2009) 255 – 259.
- 38 Patel J R & Bhatted S, A comparative study on Vamana Karma with Madanaphala and Krutavedhana in Ekakushtha (Psoriasis), *AYU*, 32 (4) (2011) 487-493.
- 39 Bhattacharyya N, Pujar M P, Chaturvedi A, *et al.*, A Clinico-analytical Study on Seed of Wrightia antidysenterica Linn. as a therapeutic emetic agent (Vamaka Yoga) in the management of Psoriasis, *Pharmacogn Res*, 8 (Suppl 1) (2016) S19-S25.
- 40 Deshpande H, Kumar S, Kavita M B, *et al.*, Assessment of quality of life in patients with skin disorders undergoing Ayurvedic panchakarma (Biopurification) as management, *Evid Based Complement Alternat Med*, 21 (3) (2016) 215-220.
- 41 Ruparel S J & Vyas S, Role of Virechana Purvaka Shamana Sneha with Rasayana drugs in the management of Psoriasis (Ekakushtha), *J Ayurveda Integr Med Sci*, 2 (1) (2017) 23-28.
- 42 Kadlimatti S & Rayabagi P, Management of Visphotaka: A Case Study, *J Ayurveda Integr Med Sci*, 4 (6) (2019) 260-265.
- 43 Nimbhorkar A U & Misar (Wajpeyi) S, Role of Shaman and Nitya Virechan in the management of Vicharchika (eczema): a case study, *J Indian Sys Med*, 8 (2020) 147-150.
- 44 Motilal R & Srilatha K, A clinical study to evaluate the efficacy of Jalukacharana and Sarivadyasava in yuvana pidaka (acne vulgaris), *Int Res J Pharm*, 3 (7) (2012) 215-217.
- 45 Singh A K, Anti-inflammatory effect of leech therapy in the patients of psoriasis (ek kushta), *J Pharm Sci Innov*, 1 (1) (2012) 71-74.

- 46 Rastogi S & Chaudhari P, Pigment reduction in nevus of Ota following leech therapy, *J Ayurveda Integr Med*, 5 (2014) 125-128.
- 47 Borakhade V R & Khot V S, Treatment of Indralupta with local Jalaukavacharan and application of Gunja beeja Lepa: a case report, *Int J Herbal Med*, 3 (2) (2015) 24-25.
- 48 Premasiri K M C L & Ediriweera E R H S S, A study on effect of Nasya Karma and Thiladilepa in treatment of Yuvana. Pidaka (Acne vulgaris) – A case report, *Int J AYUSH Case Reports*, 2 (4) (2018) 11-18.
- 49 Anuradha D, Clinical Study of Effect of Mundi Tailam on Akalpalithyam with Nasyakarma and Nasya with Panakarma, *J Drug Deliv Ther*, 2 (6) (2012) 81-82.
- 50 [https://www.techsciresearch.com/admin/gall_content/2017/10/2017_10\\$thumbimg111_Oct_2017_092916623.pdf](https://www.techsciresearch.com/admin/gall_content/2017/10/2017_10$thumbimg111_Oct_2017_092916623.pdf)