A COMPREHENSIVE REVIEW ON HERBAL COSMETICS.

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Abstract: Herbal cosmetic are the beauty products, which having a physiological activities, such as smoothening, appearance, enhancing and conditioning properties, because of Herbal excipients. The bioactive components from botanicals contains vitamins, alkaloids, proteins, and terpenoid which serve as cosmetics for caring of body and it’s body part. The Herbal cosmetic contains herbal shampoo, herbal hair conditioner, herbal soap, herbal face wash etc. That’s are used to improve skin appearance. Used in skin care and used in hair herbal cosmetic products avoid the adverse effects such as itching, burning or irritation the skin.

Keywords - Excipients, Herbal drug, Skincare.

1. INTRODUCTION:

The cosmetic word are derived from the Greek word “kosmíkos” meaning having the arrange, power and skill in decorating.(1) The origin of the cosmetics were associated with hunting, religion, fighting and superstition and associated with medicine.(2) The origin of the cosmetics forms a continuous narrative, narrative entire the history of man as they developed. When the man is prehistoric times 3000 BC used colours for decoration to attract the animals and then man attack on the animals.(3) The cosmeceuticals term was first Used by Raymon Reed founding member of us society of cosmetics chemist in 1961.(4) Cosmeceuticals are the cosmetics pharmaceutical hybrids intended to improve the health and beauty through the skin biological texture and function.(5) Cosmeceuticals are the fastest growing segment of the person care products these are the cosmetics products in which includes biologically active components of the plant origin. Increasing demand for the use of natural products in the cosmetics because the natural products having mild action and non-toxic in nature.(6)

2. Definition:

Definition of Cosmetics:- Cosmetic is defined as the articles intended to be poured, rubbed, or sprayed on, introduced into or applied to the human body for cleansing, smoothing, beautifying, promoting attractiveness or alerting the appearance of the skin.

Definition of herbal cosmetic:- Herbal cosmetic are defined as these are the cosmetics and are prepared by using natural products. which are having physiological activities such as beauty, smoothening, appearance, skin healing enhancing and conditioning properties because of Herbal excipients.(7)

3. History:

The history of the herbal cosmetic contains chapter in European and western countries from about six centuries back. Mixture and paste were then using to whitening and smoothing to the face, A practice which remained popular till over four hundred years later.(8)

Herbal medicine contains Herbal preparation, herbs, herbal materials, and finished Herbal products. Herbs contain crude plants material such as fruits, leaves, seeds, flowers, bark, stem, root which may be whole fragmented or powdered. Herbal materials contains in addition to essential oils, resins, herbs, gums, and fry powder of herbs. Herbal cosmetic preparations such as Herbal shampoo, Herbal face wash, Herbal soap, herbal conditioner etc. Some of the natural products used for in ancient times. The use of aloe as skin protectant. The use of haldi and chandan as face pack. Henna, Tea, Hibiscus is used as hair colorant and hair conditioner.(9)
Types according to the site of the Application:

- Hair
- Skin
- Nails
- Eyes

Classification of cosmetics:

1. Cosmetics for the skin:
   - Moisturizers
   - Sunscreen
   - Face wash

2. Cosmetics for the hairs:
   - Hair cleanser
   - Hair conditioner
   - Oily scalp hair tonic
   - Hair colorant

Types of Herbal cosmetic:

- Skin care
- Hair care
- Other cosmetics

I. Skin care:

Skin is constantly exposed to radiations, toxin, exposed to dirt which can affect the skin in many ways. Hence to protect the skin, cleanse it and restore the tone, inhibition tanning, smoothing skin, prevent wrinkles and scar formation, various preparation are used which are enlist are as follows:

i. Skin cleaners: - which removes the dear cells and dust Eg: Aloe, Citrus peels
ii. Hand lotion: - softening effects to the skin. Eg: Almond oil, Neem, Rose water.
iii. Nourishers: - which give nourishment to the skin Eg : Honey.
iv. Soothing Agents: - gives smooth effect to the skin  Eg : Aloevera.
vii. Anti acne agents: - which are used to treat acne theEg: cucumber gel, vetiver.
Neem: (Nimb)

Source- It is consists of leaves and other aerial parts of the Azadirachta Indica belonging to the family Meliaceae. Chemical constituents- Nimbin, Nimbanene, 6-desacetylnimbinene, nimbandiol.

Uses- Treat dry skin and wrinkles, It is used to reduce scars, Neem is used as to treat the acnes and swelling of acne. It is also used as reduce the dryness of skin by providing long lasting hydration. Honey is used as scalp cleaner.(13)

Honey: (Madhu)

Source- Honey are the sugary secretion deposited in the honey comb by the bees. Apismellifera and other species of the Apisdorsata belonging to the family Apidae. Chemical constitute- Glucose(30-40%), fructose (40-50%), small quantities of sucrose, dextrin, forming acid, also contain protein, enzyme vitamins and colouring matter.

Uses- Honey is natural antiseptic. Honey also reduces the redness.(14)

Turmeric: ( Haldi)

Source- It consist of dried and fresh rhizomes of curcuma longa belonging to family zingiberaceae. Chemical constituent- It contains volatile oils, resins, curcuminoids like curcumin.

Uses- Turmeric have antiseptic and anti-inflammatory, skin conditioning and antioxidants properties. It is used in skin care cosmetics. It is also used as antimicrobial and wound healing agents. (11)

Papaya: (Papaw)

Source- Papaya is cultivated fruiting tree Carica Papaya belonging to family Salicaceae chemical constituents- Alkaloids, Carbohydrates, proteins, proteolytic enzymes, rich chemical constituent in papaya are vitamin A, vitamin B and vitamin C.

Uses- Papaya used on dark circles. Papaya kill dead cell skin and regulate. Papaya used as anti- ageing. (15)

Chamomile: (Matricariarecutita)

Source- It is obtained from dried flowers-heads of MatricariaChamomilla L. Family Composite. Chemical constituent- The active ingredient in chamomile are apigenin, chamazulene, and bisabolol. It is contains flavonoids, coumarins, sesquiterpene, and polyacetylenes.

Uses- Chamomile has long been a key ingredients in soothing skin care regimens. Add chamomile to your skin care routine to soothe redness, fight acne, and reduce signs of aging. (16)

Liquorice: (Glycyrrhiza)

Source-liquorice consist of peeled and unpeeled roots, stolns, stem of glycyrrhizaglabralinn family Leguminosae. Chemical constituent- It contain Glycyrrhizin, Glycyrrheticacid, gluoronic acid, liquiritoside, resin, volatile oils, starch.

Uses- Liquorice is said to have a soothing effect on skin and helps to ease inflammation.(11)
- **Calendula: (Common marigold)**

  Source- *Calendula Officinalis* belonging to family *Asteraceae*. Chemical constituent- It contains carotenoids, flavonoids, saponin, sterols, phenolic acids, lipids. Various parts of plants such as leaves, flowers, having a therapeutic activity.

  Uses- It can soothe skin inflammation that is triggered due to acne, sunburn, rosacea, psoriasis, eczema or even a break down of collagen. It has a healing properties, which helps to relieve dryness, flaking and etching. The healing properties come from the calendula ability to increase blood flow and oxygen to the skin. Calendula is ideal for sensitive, oily, and acne-prone skin. It is used as moisturizers. Calendula oil may be an choice for sun protection. It posses skin rejuvenation benefits it is considered as a sunscreen for UV protection. It is high in antioxidant and can neutralize free radicals to prevent the sign of ageing like wrinkles, fine line and sagging. It is used as boosts collagen production.\(^{(17)}\)

- **Cucumber: (Cucumber vine)**

  Source- *Cucumis Sativus* a widely cultivated plants in the gourd. family *Curcurbitaceae*. Chemical constituent- It the oil in the cucumber contains 22.3% linoleic acids 58.5% oleic acid 6.8% palmitic acid 3.7% stearic acid. the fresh Cucumber is a very good source of vitamin C, vitamin K and potassium. Cucumber contains vitamin B6 vitamin A, Thymene, folate, pantothenic acid, magnesium phosphorus, Potassium, copper and manganese.

  Uses- Revitalize skin, Reverses skin tanning, controls puffiness Of the eyes. Helps soothe sunburn Rejuvenates skin. Treat open pores Flights cellulites reduce dark circles, treat blemishes. Reduce eye wrinkles Removing excess water under eye bags.\(^{(18)}\)

- **Coffee: (caffea)**

  Source- coffee bean or coffee seed is the dried ripe seed or *Coffea Arabica* Family *Rubiaceae*. Chemical constituent- Beans contains oil, wax, caffeine, aromatic oil, tannic acid, caffetannic acid, gum, sugar, proteins.

  Uses- coffee is used as anti-aging effects. It’s is used as cellulite reduction. Coffee is used as a excellent exfoliator. It is great for acne and blemishes. Coffee helps in improving blood circulation. Used in skin brightening and promote collagen production.\(^{(19)}\)
• Skin Types and their care:

<table>
<thead>
<tr>
<th>Skin Type</th>
<th>Features</th>
<th>Suitable skin care</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dry skin</td>
<td>Level of sebum low and prone to sensitivity. Has a parched look, feels tight and cracking are signs of extremely dry, dehydrated skin.</td>
<td>Aloe Ve</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Normal skin</td>
<td>Has even tone soft, smooth texture, no visible pores or blemishes and no greasy patches or flaky areas. Has a clear, fine textured, supple and smooth surface which is neither greasy nor dry.</td>
<td>Herbal face wash</td>
</tr>
<tr>
<td>4. Oily skin</td>
<td>Shiny, thick and dull coloured chronically oily skin has coarse, pores and pimples and other embarrassing blemishes prone to Blackheads.</td>
<td>Liquorice, Cucumber, Rose water</td>
</tr>
<tr>
<td>5. Combination skin</td>
<td>Some parts of your face are dry or flaky, while the centre part of your face, nose, chin, and forehead (called the T-zone) is oily. Combination skin can also be described as a condition where wrinkles and Breakout or rosacea and dry skin are present at the same time.</td>
<td>Turmeric, Aloevera.</td>
</tr>
</tbody>
</table>

• Special skin problems and Herbal Remedies:

<table>
<thead>
<tr>
<th>Skin problems</th>
<th>Features</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Sallow skin</td>
<td>No colour look, skin becomes lusterless and shows lack of vitality.</td>
<td>Inclusion of vitamin B in diet.</td>
</tr>
<tr>
<td>ii. Chapped skin</td>
<td>Rough texture which sometimes cause the skin to crack</td>
<td>Application of oils of olive oil, massaging with warm olive oil, mustard or coconut oil half an hour before bathing.</td>
</tr>
<tr>
<td>iii. Sensitive skin</td>
<td>React quickly to both heat and cold. Sunburns and wind burns occur easily. Skin become dry delicate and prone to allergic reaction. Detergent, cosmetics and alcohol can cause irritation leaving skin red and blotchy with visible surface veins.</td>
<td>Use of essential oil of Chamomile, lavender, Rose and sandal wood oil.</td>
</tr>
<tr>
<td>iv. Withered Skin</td>
<td>Very tough texture, full of wrinkles.</td>
<td>Carrot juice with a mixture of honey and egg white.</td>
</tr>
<tr>
<td>v. Acne</td>
<td>Infection that manifest as red sores and pimples</td>
<td>Usage of red sandal wood oil.</td>
</tr>
</tbody>
</table>
### List of plants with cosmetics application for skin care:

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part used</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aloe vera</td>
<td>Aloe Barbadensis (Liliaceae)</td>
<td>Leaf</td>
<td>Moisturizers, sunscreen, Emollient.</td>
</tr>
<tr>
<td>Neem</td>
<td>AzadirachtaIndica (Meliaceae)</td>
<td>Leaf</td>
<td>Antiseptic Reduce dark spot Antibacterial.</td>
</tr>
<tr>
<td>Turmeric</td>
<td>Curcuma longa (Zingiberaceae)</td>
<td>Rhizome</td>
<td>Antimicrobial Antioxidant.</td>
</tr>
<tr>
<td>Liquorice</td>
<td>Glycyrrhizaglabra (Leguminosae)</td>
<td>Root</td>
<td>Anti inflammatory Decrease pigmentation on marks.</td>
</tr>
<tr>
<td>Sandal wood</td>
<td>Santalum album (Santalaceae)</td>
<td>Wood</td>
<td>Antiseptic Fragrance.</td>
</tr>
<tr>
<td>Tulsi</td>
<td>Ocimum sanctum (Labiatae)</td>
<td>Entire herb</td>
<td>Antibacterial Decrease dark spot.</td>
</tr>
<tr>
<td>Cucumber</td>
<td>Cucumissativum (Curcurbitaceae)</td>
<td>Fruit</td>
<td>Refreshes Invigorates and cool the skin.</td>
</tr>
<tr>
<td>Lemon</td>
<td>Citrus limonis (Rutaceae)</td>
<td>Fruit</td>
<td>Regulation of pH Antioxidant Aeffect.Regulation</td>
</tr>
</tbody>
</table>

### II. Hair care products:-

Hair colour, complexion and style play an important role in peoples physical appearance.

Hair care preparation are applied topically to the scalp and hair. These contains excipients which either clean, conditioner or nourish the hair or prevent dandruff formation.

- Various hair care preparation are as follows-
  - **Hair cleanser:**- Eg. Shikakai, Soap but.
  - **Conditioner:**- Eg. Tea, Hibiscus, Amla.
  - **Hair growth promoters:**- Eg. Amla, sesame oil, Brahmi, Hibiscus.
  - **Nourisherse:**- Eg. Coconut oil, Brahmi, Bhringraj.
  - **Anti dandruff:**- Eg. Hirda, Soap nut, Thyme, Behada.  

- **Soap nut:** (Soap berry)

  **Source:** soap nut consist of pods *SapindusTrifoliatus, sapindusmukorassii* belonging to family *sapindaceae*. Chemical constituent- It contains mucilage, gums, proteins, saponins contains gitogenin, diosgenin, chlorogenin.

  **Uses**- It is used as hair cleanser. It is used as Hair growth promoters. It is used as antidandruff agent.

- **Shikakai:** (Vimala)

  **Source:** shikaki consist the fruit of the plant *Acacia Concinna Linn* belonging tofamily *Leguminosae*. Chemical constituent- Lactone, Lupeol, acaciac acid and the natural sugars glucose, rhamnose and arabinose. It also contains spinasterone, hexacosanoloxalic acid, citric acid, tartaric acid, succinic acid, asorbic acid. And the Alkaloids calycotomine and nicotine.

  **Uses**- It is used for washing hairs. Shikakai has soothing And calming effect due to its potent medicinal properties.
• **Amla:** (Indian goose berry)

Source- Amla consist of dried and fresh fruit of the *EmblicaOfficinalis* belonging to family *Euphorbiaceae*. Chemical constituent- Ascorbic acid is a rich source of Amla, other chemicals constitutes contains minerals, tannins, such as calcium, phosphorus, iron and pectin also rich source of Amla.

Uses- Amla is used as hair growth promoters. It is used as hair nourisher. Amla is used in hair conditioner and hair colorant. (11,22)

• **Hibiscus:** (Jaswandi)

Source- It is consists of dried flowers and leaves of *Hibiscus Rosquinensis* belonging to family *Malvaceae*. Chemical constituent- It contains vitamins, flavonoids, anthocyanins, mucilage, quercetin, albumin.

Uses- It is used as hair growth promoters, used as anti greying agents. Hibiscus gives smoothing and shiny effects to hairs. (11,23)

• **Tea leaves:** (Chai)

Source- It consist of dried leaves of *Thea sinensis* and *Camellia Sinensis* belonging to family *Theaceae*. Chemical constituent- Tea contains caffeine, catechin, polyphenols, epicatechin, theophylline, theobramine.

Uses- Tea is used as hair colorant. And also used as hair colorant. (11)

• **Henna:** (Mehedi)

Source- It consist of dried leaves of *Lawsoniainermis* belonging to family *Lythraceae*. Chemical constituent- Henna contains a soluble components know as Lawsone. It is responsible for the colour. It also contains xanthones, tannins, flavonoids and cumarins.

Uses- Henna is used as hair dye and also used hair colorant. It produce cooling effect on the skin. Henna used to treat burns and wounds. (11,24)

• **Brahmi:** (Brambhi)

Source- It consist of fresh leaves and stems of plants *BacopaMoniera*inn belonging to family *Scrophulariaceae*. Chemical constituent- saponinBacoside A and B, Alkaloids Brahmin, herpestin.

Uses- Brahmi can nourish the scalp efficiently and turns it healthier. It also induces enough moisture in it to take care of any moisture related issue, reduce dandruff to a great extent. It is gives a soothing effect to hairs.
• **Bhringraj:** (Bring)

Source - It consist of the entire herb of *Eclipta alba* belonging to family *Asteraceae*. Chemical constituent - It contains alkaloids ecliptine, amyrin, luteolin.

Uses - It is used as improve the skin complexion. It is used to promote the hair growth, strengthen hair and prevent and dandruff.\(^{(1)}\)

• **Sesame oil:** (Linseed oil)

Source - It is a fixed oil obtained from *sesamum indicium*, belonging to family *pedaliaceae*. Chemical constituent - It contains linoleic, oleic acid, palmitic acid, stearic acid, and arachidic acid. It contains glycerides of fatty acids. It also contains sesamol, phenol.

Uses - It is used as softening agent, It’s is used as nutritive for hairs. It is used in the manufacture of soaps, ointment and pastes. Sesame oil also used as Hair growth promoters.\(^{(1)}\)

• **Coconut oil:** (Copra oil)

Source - coconut oil is the oil expressed from the dried solid part of endosperm of coconut *CocosNucifera L.* belonging to family *Palmae*. Chemical constituent - It is composed of the fatty acids caprylic acid c- 8:0(8%), capric acid (10:0) (7%), palmitic acid c-16:0 (8%) linoleic acids.

Uses - using it as a hair mask and leave in treatment may help moisturizer and seal hairs. This can help to prevent a dry, flaky scalp and dandruff, as well as split ends and hair breakage for these reasons, coconut oil might make hair look shinier, stronger, and longer.\(^{(2)}\)

• **Almond oil:** (Linseed oil)

Source - almond oil is a fixed obtained by the expression from the seed of *PrunusAmygdalusvardulcis* belonging to family *Rosaceae*

Chemical constituent - Almond oil is full of vitamin E, and it’s great source of magnesium, phosphorus, and copper. It also anti-inflammatory and boost immunity.

Uses - Using almond oil gives softening effect to hair. Almond oil contains vitamin E which is a natural antioxidant. When antioxidant combat that environmental stress around your hair, your hair looks younger and healthier. Almond oil can also be used as a treatment for flaky scalp and scalp psoriasis. Almond can reduce breakage, split ends, itchy scalp and dry roots.\(^{(2)}\)
### List of Medicinal Plants used for Hair care:\(^{20}\)

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Part used</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Shikakai</td>
<td>Acacia Concinna (Leguminosae)</td>
<td>Pods</td>
<td>Promotes hair growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Preventing dandruff.</td>
</tr>
<tr>
<td>2. Brahmi</td>
<td>Bacopamonneri Linn (Scrophulariaceae)</td>
<td>Entire herb</td>
<td>Hair growth</td>
</tr>
<tr>
<td>3. Bhringraj</td>
<td>Eclipta alba (Asteraceae)</td>
<td>Plant</td>
<td>Promoting hair growth</td>
</tr>
<tr>
<td>4. Neem</td>
<td>AzadirachtaIndica (Meliaceae)</td>
<td>Whole plant</td>
<td>Hair and scalp care</td>
</tr>
<tr>
<td>5. Henna</td>
<td>Lawsonia inermis (Lythracae)</td>
<td>Leaves</td>
<td>Used to colour the hairs</td>
</tr>
<tr>
<td>6. Amla</td>
<td>EmblicaOfficinalis (Euphorbiaceae)</td>
<td>Fruits</td>
<td>Used as a hair nourisher</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Used as hair conditioner.</td>
</tr>
<tr>
<td>7. Hibiscus</td>
<td>Hibiscus rosasinensis (Malvaceae)</td>
<td>Flowers</td>
<td>It is used as hair growth.</td>
</tr>
<tr>
<td>8. Soap nut</td>
<td>Sapindus mukorassi (Sapindaceae)</td>
<td>Pods</td>
<td>Used as hair cleanser</td>
</tr>
<tr>
<td>9. Tea leaves</td>
<td>Thea sinensis (Theaceae)</td>
<td>Leaves</td>
<td>Used as hair colorant</td>
</tr>
<tr>
<td>10. Sesame oil</td>
<td>Sesamum indicium (Pedaliaceae)</td>
<td>Fixed oil</td>
<td>Used as hair growth promoters.</td>
</tr>
</tbody>
</table>

### Other cosmetics:

i. **Perfume**- Eg. Volatile oils of plants like rose, sandal wood.

ii. **Talcum Powder**- It contains talc with added plant extracts to impart the desired flavour and odours. Eg. Sandal wood, Rose, Lavender.\(^{11}\)

- **Sandal wood**- (Lignum Santali)
  
  **Source**- It consist of heart wood of *Santalum album* belonging to family *Santalaceae*. Chemical constituent- It contains volatile oils, which contains 95% of two isomeric sesquiterpene alcohol namely alpha and beta Santalol. It is also contains santalal, santene, santalone, and santalene.
  
  **Uses**- Sandal wood is used in perfumery as skin conditioner, in cream and powder.\(^{11}\)

- **Lavender**- (plum)
  
  **Source**- *Lavandula Angustifolia* other *Lavandula* cultivator belonging to family *Lamiaceae*. Chemical constituent- The main active ingredient are monoterpenes, linalal, linalyl acetate, lavandulol, geraniol, bornylacetate, borneol, terpineol and eucalyptus or lavandulyl.
  
  **Uses**- It is use as talcum powder.\(^{28}\)
Advantages of Herbal Cosmetic:

- Herbal cosmetic are easily incorporated with skin and Hair.
- They are easily available and found in large variety of and quantity.
- They do not generate allergic reaction and not have any side effects.
- In small quantity herbal cosmetic are very effective as compared to synthetic cosmetic.

CONCLUSION:

- The use of bioactive components in cosmetics influence biological function of skin and provide nutrients necessary.
- There is tremendous scope to launch numerous herbal cosmetic using appropriate bioactive ingredients with suitable fatty oil, essential oils, proteins and additives.
- Quality control for ability and safety of herbal cosmetics products is of predominant importance. So quality control test must be carried out for Herbal cosmetic.
- So from all the study of herbal cosmetics we can concluded that ‘The herbal cosmetic’ are the most significant alternative for the synthetic cosmetic.

REFERENCES:


[6] Dr.S.Sathya, Dr.K.Paiganesh, Dr.T.Sudha Herbal drug technology book.


[16] https://www.slideshare.net/buddy.tignor/chamomile-botany-presentation


[26] coconut oil Herbs with cosmetic application [online], Available from: http://www.jibc.com/herbs-cosmeticapplications/


[28] Banda University of agriculture and technology https://www.slideshare.net/KanchanThakur6/lavender-spp

[29] https://www.slideshare.net/rahimbrave/herbal-cosmetics-69811712, Raheem Bahadar PhD Scholar Department of Pharmacy