

Review on Herbal kajal

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Abstract:- Kohl is a revolutionary technique and a novel are conceived of as the production of Kohl herbal kajal with medicinal plants for enhancement. The key benefits of these Cosmetics items are greater patient conformity, water-resistant properties, durability and cost-efficient shaping Curve. Revealed the values were within the prescribed limits by standardization of the herbs was performed based on different physiochemical parameters. On the basis of selected parameters and its anti-microbial potential was compare with comparator products the herbal kajal was evaluated. Kohl's have been used since antiquity in various civilizations of the world, and dates back to the Bronze Age. It is chiefly used by the females of South Asia, Middle East and Africa. It is known as "qwalli" in West Africa and "surma", "kajal", or "kaadige" in South Asia. The concerns are even more grave since kohl finds greater acceptability in women and infant population. Herbal kohl was formulated and scientific intent was used for selection of ingredients. The herbal kohl formulated showed antimicrobial activity, the major concern of the study.

Keywords:- Kohl, Kajal, Surma, Herbal Kohl.

I. INTRODUCTION

Eyes are the important connections between the outer and inner worlds. For the element of fire and light that governs our eyes pitta dosha stands for that in Ayurveda. Hence eyes are very important organ in our body system. For care and beautification of eyes vedic science offers several natural, safe and effective techniques. With the help of science of ayurveda, several herbs and floras were used to make Ayurvedic cosmetics that not only beautified the skin but as well as act as the shield against any kind of external affects for the body. In cosmetics for useful purposes such as moisturizing, whitening, coloring, sunscreen, antioxidant, immunostimulant, cleansing, preservatives, thickeners, etc. plants products are also used. Role of kajal in eye products can't be ignored as it is one of those products.

Kajal is worn for many reasons including tradition, beautification, to ward off the "evil eye". It is the widespread belief that kohl is medically beneficial for the eyes, and finally

because wearing kohl is encouraged within the sunna, the traditional behavioral guidelines of the Islamic religion [2] . There are number of plants which are used ophthalmic disorders, either single or in compound formulations are present in the Ayurvedic system of medicine, as mentioned in ancient Indian books like Charak Samhita, Sushrut Samhita, Bhav prakasha, Ras Tarang, Nayan Drastam and Astanghriday. Various eye disorders and diseases like Abhishyand (Conjunctivitis), Adhimanth (Glaucoma), Timir (Cataract), etc. have been described in great details1 in Ayurveda.(Indian system of medicine).Their etiology and treatments have also been described. Use of Various herbal drugs in different dosage forms like extract, arkas (aqueous distillate), kajal (collerium), and fomentation and washing with different extracts have also been prescribed frequently [3] . Not only the use of animals for laboratory testing but also with the use of materials and ingredients derived from animal sourcesis the concern in this area. For the standards and quality of drugs and cosmetics manufactured and sold in India the Drugs and Cosmetic act is concerned.

II. HISTORY

Eye make-up has been used for thousands of years. Materials used by ancient civilizations include " kohl (based on antimony trisulphide), 'malachite (for giving green tint), 'tsocco' (based on antimony), peruvian bark. Kohl is a black colouring. Egyptian women used kohl as well as malachite Malachite confers a green tint. Indian women tinted their eyelids with tsocco. Japanese and Chinese women used peruvian bark for preparing eye make- up.

In modern time, eye make-up is an essential item of facial make-up, cosmetics which are used in the area of eyes include the following:

Eyeshadow,
Mascara,
Eyebrow pencil,
Eye cream,
Kajal.

There are several plants that are used as ophthalmic disorders. As stated in ancient Indian books such as Charak Samhita, Sushrut Samhita, Bhav Prakash, Ras Tarang, Nayan

Drastam and Astanghriday, either single or compound formulas are present in the Ayurvedic medicines framework. Several eye problems and diseases have also been defined in detail in Ayurveda (Indian medical system). Their etiology and diagnosis have also been identified. Numerous eye problems such as abhishyand (conjunctivitis), adhimanth (glaucoma). Specific herbal remedies were often commonly recommended for various dosage types such as powder, arka (aqueous distillate), kajal (collerium) and fomentation and washing with various extracts. In this area, it is also essential to use not only animals for laboratory research but also materials and ingredients extracted from animal sources. The medicines and cosmetics act are connected with the safety and price of goods produced and marketed in India. There is therefore a primary need for regulation for 'natural' products used in various preparations. Of late, standardization is the key principle which is able to establish confidence and faith in the goods and improve consumer importance. Both the customer and the professional are also awaiting manufacturer 's confirmation of product consistency, health and performance. [6]

III. EYE ANATOMY

The eye is made up of three coats, which enclose the optically clear aqueous humour, lens, and vitreous body. The outermost coat consists of the cornea and the sclera; the middle coat contains the main blood supply to the eye and consists, from the back forward, of the choroid, the ciliary body, and the iris.

➤ Herbal Kohl

It is worn for a variety of reasons including tradition, beautification, to ward off "evil eye," the widespread belief That kohl is medically beneficial for the eyes, and finally Because wearing kohl is encouraged within the sunna, the Traditional behavioral guidelines of the Islamic religion. [2]

➤ Ideal Characteristics

- It should have a smooth, glossy look without any perspiration.
- There shouldn't be any grit in it.
- It shouldn't irritate or be toxic to eyes.
- The container should be simple to use.
- When stored, it shouldn't dry out.
- It should apply a consistent colour to the application area.
- There shouldn't be any melting or hardening within a tolerable range of climatic Temperature

➤ Artificial Kajal Vs Herbal Kajal

Kajal is an eye-driven cosmetic device In reality, Kajal is first cosmetic product used by most people to make the eyes look attractive. The usage of kajal can date its elegance and its therapeutic benefits to more than 5000 years. Kajal was produced from camphor, vegetable oil and ghee originally at home. Kajal was commercially produced Over time. Various natural and industrial goods are produced of commercial kajal

Lead has been used widely in the manufacture of commercial kajal and is hence known to be eye-harmful for commercial kajal. Skin affects not just the structures of the body but also the skin. Consequently, herbal kajal or ayurvedic kajal can be used. Organic kajal, in the sense that it is created using natural ingredients, is 100 percent fresh. This also refers to Kajal Ayurvedic. Eyes with pure rizinic wax, ghee, bronze utensil and camphor may be rendered with ayurvedic Kajal. This can be made with almonds as well. For both of these instances, the kajal is pure for nature and hits the eyes many times.

Ayurvedic kajal has therapeutically beneficial ingredients for the body. The usage of organic kajal hydrates the eyes and hydrates them. The usage of this kajal often removes impurities to freshen the skin. The ayurvedic kajal raises the clarity of the eyes and improves the eye muscles. The usage of the kajal tends to drain tear fluid more rapidly Than by using industrial kajal. Natural kajal often has astringent properties and thus melts in the eyes of tiny red Vessels to stay clean.[1]

➤ Benefits of Herbal Kajal Over Synthetic Kajal:

- Ayurvedic kajal has therapeutically beneficial ingredients for the body.
- The usage of organic kajal hydrates the eyes.
- The usage of this kajal often removes impurities to freshen the skin.
- It is non irritant.
- It is 100% of pure herbs
- It is clinically and ophthalmologically approved
- Herbal kajal cosmetics are safe for use as compare to synthetic kajal
- Herbal kajal is use in any age group.
- It also prevents impurities from getting into eyes & clarifies.
- Herbal kajal are enhancing their shine & fortifying the eye muscles & nerves.

IV. COMPOSITION OF HERBAL KAJAL

➤ Bases

- Waxes : Beeswax, Carnauba wax, Ozokerite wax
- Oils : Coconut oil, Almond oil,
- Dill Seeds

- Colouring agents: Acai, Avacado, Blue Tansy, Hemp
- Moisturizing agents: Aloe vera, Ghee
- Cooling agents: Castor oil, Camphor

➤ Bases

A. Waxes

Waxes are a diverse class of organic compounds that are lipophilic, malleable solids are near ambient temperatures. They include higher alkanes & lipids. Waxes are insoluble in water but soluble in nonpolar organic solvents such as hexane,

benzene & chloroform. Natural waxes of different types are produced by plants & animals and occur in petroleum.

➤ *Beeswax:*

Beeswax is a natural wax produced by Honey bees of the genus *Apis*. The wax is formed into scales by eight wax producing glands in the abdominal segments of worker bees, which discard it in the hive. The hive workers collect and use it to form cells for honey storage and larval & pupal protection within the beehive.

Beeswax has been used since prehistory as the first plastic, as a lubricant & waterproofing agent, in lost wax casting of metals & glass, as a polish for wood & leather, for making candles, as an ingredient in cosmetics & as an artistic medium in encaustic painting.[7]

➤ *Carnauba wax :*

Carnauba wax is commonly found in mascaras and eyeliners to create a firmer, waterproof product. However, using carnauba wax and other types of wax on your eyelashes and near your eyes could cause the oil glands at the base of your eyelashes to become clogged. This can result in dry eye, as oil secretions are necessary in order to keep your eyes properly lubricated.

➤ *Ozokerite wax*

It is used in beauty products as a binder, emulsion stabilizer, and viscosity increasing agent. According to research, Ozokerite waxes thicken the oil portion of cosmetics and personal care products, and help to prevent emulsions from separating into their oil and liquid components. Ozokerite is a mineral wax used as a texture enhancer in cosmetics, especially to add stability to Kajal stick foundations and keep them blended.

B. Oils:

➤ *Almond oil:*

Almond oil can help to lighten the dark circles under eyes & reduce under eye puffiness. This is the Anti-inflammatory & Antioxidant properties. Almond oil also contains retinol, vitamin E, & vitamin K, which can keep the delicate skin under your eyes smooth without irritating it. These naturally occurring ingredients may also help contract the dilated blood vessels that are causing the discoloration.[8]

➤ *Coconut oil:*

Coconut oil is great for those with dry eyes, as it create a protective layer over the tear film layers, resulting in reduced evaporation. Coconut oil has antibacterial, anti-parasitic, antiviral & anti-inflammatory properties. [9]

C. Dill Seeds

Dill weed is highly rich in Vitamin A, which is very beneficial for our eye health and is also helping to prevent the retina damage. Different studies have been proven that

consumption of vitamin a rich food such as Dill weed can improve the eyesight and prevent various types of eye related issues such as macular degeneration and cataract because it has antioxidant properties.

➤ *Colouring Agents:*

• *ACAI:*

Acai berries are a dark purple in colour. Their main chemical compounds are anthocyanins including cyanidin-3-rutinoside and cyanidin-3-glucoside, which are predominant in açai fruits. These fruits also contain several flavone and flavonol glycosides, flavanol derivatives, and phenolic acids. The fruit also yields an oil which is deep green in colour and is pressed from the fruits (pulp) of the Açai palm from Brazil.

• *Avacado:*

One of the main pigments found in avocado oil is lutein, which is one of 600 known naturally occurring carotenoids. Lutein is synthesised only by plants and like other xanthophylls is found in high quantities in green vegetables such as spinach, kale and avocado.

• *Blue Tansy:*

Blue Tansy is a member of the Asteraceae family, which means it's related to chamomile. As you'll see in the list below, German Chamomile yields a compound called Chamazulene. This compound is also found in Blue Tansy (17-38% Chamazulene in the essential oil) and is produced during steam distillation. If you want to give your formulation a blue tinge, you can use Blue Tansy essential oil.

• *Hemp:*

Hemp oil has an intensive green colour due to its chlorophyll content. Hemp oil obtained by supercritical CO₂ has three times higher chlorophyll content and four times higher total carotene content compared to the cold pressed oil (Aladić, et al., 2014). Chlorophyll is soluble in alcohol and oil, but insoluble in water.

➤ *Moisturizing Agents*

• *Aloevera:*

Aloe vera is often used around the eyes to help heal or repair damaged skin. Relieve swelling or puffiness. Moisturize dry or flaky skin, The water and enzymes contained in aloe vera can help moisturize your skin and reduce flakiness and itchiness. Aloe vera may help prevent dry skin in cold weather. Aloe vera may also act as a gentle cleanser to help clear up oily skin. [17]

• *Ghee:*

It is very important for you to know that pure cow ghee has Vitamin A and it is known for an amazing lubricating power. It is a rich source of omega 3 fatty acids that help maintain optimal eye health by treating eyesight problems.

➤ *Cooling Agents*

• *Castor oil:*

Castor oil is traditionally known as a gentle, effective oil brimming with health benefits. If your eyes are overworked and tired, try this quick castor oil massage. It cools the eyes. It helps moisturise your under eye areas.[16]

• *Camphor:*

Camphor helps to provide a cooling effect to the eye and reduces discomfort and pain. Camphor is a waxy, flammable, transparent solid with a strong aroma. It is a terpenoid, found in the wood of the camphor laurel, a large evergreen tree found in East Asia; and in the kapur tree, a tall timber tree from South East Asia.

❖ *Types of herbal kajal*

➤ *Medicated purpose*

This is used for treating ailments and disease of eyes.

➤ *Beautifying purpose*

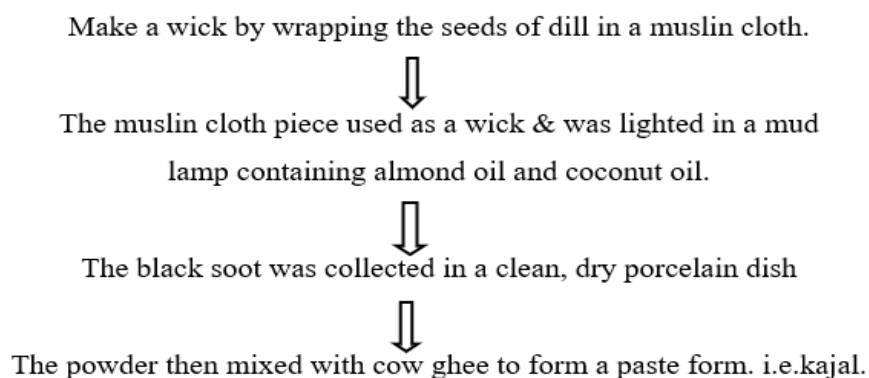
This temporarily alters appearing human body

• *Medicated purpose*

Herbal Kajal is a natural product rich in potent medicinal herbs that is not only an eyeliner but has effective therapeutic properties. It contains a natural blend which is prepared in a traditional Ayurvedic method to improve your vision and promote the growth of eyelids. Herbal Kajal has effective antiseptic and anti-inflammatory properties and reduces swelling of the eyelids and cleanses the eyes from potentially harmful impurities. They subtly improve vision, accelerate the growth of thick eyelashes and relieve eye fatigue.

• *Beautifying Purpose*

The concept of beautification has been an integral part of Indian civilization. Herbal cosmetic is one of the most effective areas of cosmetic technology. Beautifying herbal kajal is used to the cleansing of eyes, beautifying & promoting attractiveness.



Preliminary Ayurveda Formulation of Kajal

Fig 1:- Method of Preparation

❖ *Evaluation Test of Herbal Kajal*

➤ *Physical Evaluation :*

Kajal / Kohl formulations were evaluated for its physical parameters like colour, odour, texture & consistency. All kajal formulations showed their similar physical characteristics like black in colour, characteristic odour with smooth appearance or texture & all formulations were found to possess semisolid consistency.[10]

➤ *Spreadability :*

To obtain a spreadability of kajal formulations, take an excessive amount of kajal sample. It was placed on glass slides & the weight was placed on the slides for 5 minutes to press the kajal samples to the same thickness. Weight is added on pan. The time required for the split of two slides was taken as a measure of the spread.[11]

➤ *pH Determination :*

The pH of the prepared formulation is measured by a pH meter. 1gm of kajal sample was measured and dispersed in 25 ml of DMSO (Dimethyl Sulfoxide) & stored for 2 hours. The pH value of the kajal composition was recorded three times and average taken.[11]

Where, W = weight in g of substance taken
A = sample solution reading.

B = blank solution reading

➤ *Viscosity Determination:*

By Using Brookfield Viscometer.[5]

➤ *Microbiological Test:*

A known mass of the sample is plated on two different culture medium that are chosen particularly for the growth of bacteria and fungus, and they are then incubated for a certain amount of time to allow the development of visible colonies for counting.

V. CONCLUSION

In India more than 70 % of the populations use herbal cosmetics for their health care. Herbal kohl is formulated and scientific intent is used for selection of ingredients. The chemical formulation of herbal kajal products includes addition of various natural additives like waxes, oils natural color, natural fragrances and parts of plants like leaves, etc. The advantages of herbal kohl are lower cost, side effects free, environmental friendly, safe to use etc. Also it has a great future ahead as compared to the synthetic cosmetics. Proper regulation of these herbs and standardization will lead to tremendous and significant growth in herbal cosmetics field.

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