

HERBAL LOTION FOR ALOPECIA TREATMENT: A REVIEW

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Abstract

Alopecia is the medical term for hair loss and baldness. It is a health condition in which hair is lost from some or all areas of the body usually from the scalp. Hair loss can be caused due to different reasons such as genetic tendencies, environmental triggers, exposure to chemicals, medicines, nutritional deficiency, extreme stress, or long illness. Based on hair loss pattern and causes, alopecia is classified into several categories. The two major forms, Alopecia areata and Androgenetic alopecia, are of main concern at present. Several alternative remedies like Corticosteroids, dithranol, Tretinoin, minoxidil, zinc, systemic testosterone, irritants, immunosuppressants, drugs, finasteride, and zelaic acid are available for the treatment of Alopecia (both Androgenetic and Areata). However, no single or multiple pharmacological therapies are providing Alopecia patients with satisfying and long-term outcomes. Besides, several effects are associated with the use of these synthetic compounds, including erythema, scaling, pruritis, dermatitis, itching, so to cope with the problem of Harihar's, here we have looked into the Ne's treasure and found a number of several proved records for the treatment of alopecia. Nutritional support, DHT blockers and 5- α Reductase blockers, Aromatherapy, and improved scalp blood circulation are the proposed mechanisms of action for these herbal remedies. Being natural drugs, here are many advantages of using them like patient compliance, fewer side-effects, easy availability, low-cost, and more than one mode of action for the treatment of Alopecia baldness.

Keyword: Alopecia, DHT, Nutritional, 5- α Reductase, Harihar's.

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INTRODUCTION

Hair is a vital part of the body derived from the ectoderm of skin. It is protective appendages on the body and considered accessory structure of the integument

along with sebaceous glands, sweat glands and nails. They are known as epidermal derivatives as they originate from the epidermis during embryological development. Hair is an important of the

overall appeal of the human body Alopecia is a dermatological disorder that has been recognized for more than 2000 years is a common problem in cosmetics as well as primary health care practice It is common throughout the world and has been estimated to affect between 0.2 % and 2% of the world population. Synthetic drug-like minoxidil is a potent vasodilator and scientifically proved for the treatment of alopecia [baldness] But the use of these synthetic drugs are associated with many adverse events and is generally not advisable for safe and effective treatment of alopecia so the drugs of natural origin are necessary to replace the synthetic one and reduce the adverse effects associated with them this review article is presented compiling all the updated information on natural herbs exhibiting potent action against alopecia along with the mechanism of actions Alopecia is the medical term for hair loss or baldness

Types of Alopecia

Alopecia Areata

Androgenetic Alopecia (Pattern Hair Loss)

Central Centrifugal Cicatricial Alopecia (Scarring Alopecia)

Chemotherapy-Induced Alopecia (Anagen Effluvium)

Frontal Fibrosing Alopecia (Scarring Alopecia)

Lichen Planopilaris (Scarring Alopecia)

Telogen Effluvium

Traction Alopecia (hair loss)

Nutritional Support :-

Minerals such as vitamins, E, calcium, iron, copper chromium, iodine, zinc, and magnesium are necessary to maintain healthy hair growth Mineral deficiency will reduce the chance to regulate the blood circulation that promotes healthy hair growth and thyroid hormones that prevent dry hair and hair loss as well as

defects in hair color.

HERBAL INGREDIENTS:-

ALOVERA:-

Scientific name: Aloe vera

Family: Asphodelaceae

Order: Asparagales

Kingdom: Plantae

Aloe vera is gel from the leaves of aloe plants. People have used it for thousands of years for healing and softening the skin Aloe has also long been a folk treatment for many maladies and skin disorders. Modern-day research into aloe vera's benefits is mixed with some evidence showing it can cause in lab animals. There are no foods that contain aloe vera so it must be taken in supplements or gel form

Composition: Active components with its properties: Aloe vera contains 75 potentially active constituents: vitamins, enzymes, minerals, sugars, lignin, saponins, salicylic acids, and amino acids Vitamins: It contains vitamins A beta-carotene C and E, which are antioxidants. It also contains vitamin B12, folic acid

Biological action: Aloe vera also appears to function as an antioxidant through free radical- and superoxide radical-scavenging activities and anti-inflammatory activities via inhibition of prostaglandin E2 production from arachidonic acid and also inhibition of various transcription factors and the activities of enzymes including.

Side effect:

blood sugar (hypoglycemia)

Burning and itching of the skin (infrequent)

Stomach pain and cramps (high doses)

CARROT:-

It is commonly known as a carrot.

Scientific Name- *Daucus carota*

Family:- Umbelliferae

Kingdom: - Plantae

TABLE 1: Herbs Providing Nutritional Support in the Treatment of Alopecia

Biological Source	Family	Common name	Part used	Chem. Const.	Action
<i>Aloe barbadensis</i>	Liliaceae	Aloe vera	Leaves	Minerals	Nutritional support
<i>Amaranthus spinosus</i> L.	Amaranthaceae	Bathua	Seeds, leaves	Fe, Cu, Zn & other Minerals	Nutritional support
<i>Avena sativa</i>	Poaceae	Wild Oats	Seeds	Carbohydrates, Fibers, Fe, Zn and Mn	Nutritional support
<i>Bacopa monniere</i>	Scrophulariaceae	Brahmi	Entire plant	Triterpenoids saponins, bacosides	Nutritional support and nerve stimulant
<i>Cajanus cajan</i>	Fabaceae	Pigeon pea	Seeds	Protein, starch & minerals.	Nutritional support
<i>Daucus carota</i> L.	Apiaceae	Carot	Roots	B-carotene, antioxidants & minerals	Nutritional support
<i>Juglans regia</i> L.	Juglandaceae	Akhrot	Fruit	Fe, Cu, Mn, Zn, K, proteins and fats	Nutritional support
<i>Lactuca sativa</i> L.	Asteraceae	Lettuce	Leaves	Vit. A & folic acid	Nutritional support
<i>Medicago sativa</i>	Fabaceae	Alfalfa	Leaves	Proteins, Calcium, Minerals & Vitamins	Nutritional support
<i>Pelvetia canaliculata</i>	Fucaceae	Channelled wrack	Brown algae	Isoflavones	Antioxidant action like Vit. E
<i>Phyllanthus embelica</i>	Euphorbiaceae	Amla	Fruit	Gallic acid, Vit. C, Quercetin	Nutritional support
<i>Prunus amygdalus</i>	Rosaceae	Badam	Seed oil	Vit B1, B2, B3, minerals, Vit. F, fats	Nervine tonic

Table 2: Herbs for Alopecia With Their Mode Of Actions

Biological Source	Family	Common name	Part used	Chem. Const.	Action
<i>Arnica Montana</i>	Asteraceae	Mountain tobacco	Flowers	Terpenoids	Aromatherapy
<i>Cedrus atlantica</i>	Pinaceae	Cedarwood	Wood chips & saw dust	Terpenoids	Aromatherapy
<i>Lavandula agustifolia</i>	Lamiaceae	Lavender	Flowering tops	Terpenoids	Aromatherapy
<i>Oscimum sanctum</i>	Lamiaceae	Tulsi	Whole plant	Terpenoids	Aromatherapy
<i>Pilocarpus jaborandi</i>	Rutaceae	Jabarondi	Leaves	Terpenoids	Aromatherapy
<i>Rosmarinus officinalis</i>	Lamiaceae	Rosemary	Flowering tops	Terpenoids	Aromatherapy
<i>Thyme vulgaris</i>	Lamiaceae	Thyme	Flowering tops & leaves	Terpenoids	Aromatherapy
<i>Allium cepa</i> L.	Alliaceae	Onion	Cloves	Allicin, Vit. C S-containing compds., minerals	Stimulates hair regrowth
<i>Allium sativum</i> L.	Alliaceae	Garlic	Cloves	Allicin, Vit. C S-containing compds., minerals	Anti-microbial & nerve stimulation
<i>Camellia sinensis</i>	Theaceae	Tea	Leaves	Catechins, epicatechins, caffeine, & other tannins	5- α reductase inhibitor
<i>Capsicum annum</i>	Solanaceae	Pepper	Fruits	Capsiacin and isoflavones	Nerve stimulation and production of IGF-I
<i>Eclipta alba</i> (L.) Hassk	Asteraceae	Bhringraj	Leaves	Ecliptasaponin C, daucosterol, stigmasterol-3-O-glucoside	Follicular enlargement and prolongation of Anagen phase

Taste:- Sweet like taste

Chemical constituents- Moisture Protein, Carbohydrate, Crude fiber, Calcium Magnesium, Vitamine A

Uses:-

It is to increase theof vitamin A in the body.

It is used to prevent cancer because it various vitamins to the human body.

It increases the nutritional deficiency of the body and Oautomaticallydecreases the hair follicles.

It acts as an antioxidant so it decreases oxidation and automatically decreases hair follicles.

It's used in the treatment of diabetes.

It is also used in the treatment of hypertension to decrease hair follicles.

It is good wound healing properties.

It gives antibacterial so it decreases the growth of bacteria on the scalp.

AKHROT:-

Family:-Juglandaceae

Scientific name:- Juglans nigra

Chemical constituents:- Ferulic acid, Phosphorus, Vitamin B6, Magnesium, Vitamin E, Omega-3 fatty acid

Mechanism of action:- The walnuts are applied to then scalp where it is releases vitamin E and omega-3 fatty acids which are responsible for hair growth and automatically decrease alopecia.

Uses:-

It is an antioxidant activity usedto use to decrease the oxidation of harmfulsubstances.

It contains vitamin E, so it increases the concentration of vitamin E,whichis responsible for hair growth.

It also contains omega-3 fatty acid which is required for the growth of hair.

It also decreases inflammation because it shows anti-inflammatoryactivity.

It is also used in the cancer treatment.

It is also used in diabetes treatment

It is also used to decrease blood pressure so automatically increases the growth of hair.

It increases brain growth.

It also increases the growth of the male reproductive function.

AMLA:-

Family:-Euphobiaceae

Kingdom:- Plante

Order:- Malpighiales

Genus:- Phyllanthus

Species:- P.emblica

Chemical constituents:- Tannins, Alkaloids, Phenolic compound-Gallic acid, Methyl gallate, ellagic acid, Amino acid, Carbohydrate, Vitamin, Flavonoids, Organic acid-citric acid, Vitamin C

Mechanism of action:- The amla is applied on the scalp to increase the growth of hair because it decreases the dust on the scalp and also acts as an antioxidant so, which is also increases the growth of hair.

Uses:-

It is used to treat cardiac disease and also used to treat diabetes.

It is also used as an eye tonic because it gives vitamin C.

Amla juice is also used for bloodpurification so automatically increases the growth of hair.

Its used in the treatment of respiratory diseases

It is used in the diarrhea

It is also used in the treatment of constipation

ALMOND:-

It is commonly known as badam in India. They are sweet and bitter depending on the type of three.

Scientific name:-Prunus

Family:- Rosaceae

Kingdom:-Plantae

Order:- Rosales

Chemical constituents:- Fats (linoleic acid, fatty acid, palmitic acid), Glycosides, Vitamins (vitamin B, vitamin E, vitamin B2), Dietary fibres, Minerals (magnesium, phosphorous, calcium, potassium), Polyphenols

Mechanism of action:- The almond applied to the skin then softens the skin by forming an occlusive oil on the stratum corneum thus decreasing transdermal water loss.

Uses:-

The bitter almond is used as a sedative due to HCN contain.

It acts as a demulcent in skin lotion.

It makes teeth bone strong.

It acts as an antioxidant for hair.

It is used in the treatment of constipation.

It contains vitamin E, which is used in oil for hair and increases the growth of hair.

It increases the memory of a person.

Rosemurry:-

Kingdom:- Plantae

Order:- Lamiales

Family:- Lamiaceae

Genus:- Rosmarinus

Species:- R. officinalis

Botanical name:- Rosmarinus officinalis

Chemical constituents:- Rosmarinic acid, Camphor, Caffeic acid, Ursolic acid, Betulinic acid

Uses: -

It produces a cooling effect on the scalp.

It gives antimicrobial activity so it is used to decrease the growth of micro-organisms.

It also gives anti-oxidant activity, so it is used to decrease the oxidation of harmful substances.

It is also used in the cancer treatment.

It gives anti-inflammatory activity so it is in the treatment of inflammation.

It is also used in the treatment of asthma. It decreases the hypertension of the patient and automatically increases hair growth.

It is used in shampoos and cleaning products to clean hair and scalp

Tea:-

Family:- Theaceae

Genus:- Camellia

Species:- C. Sinensis

Chromosomes in tea:- These findings suggested that the diploid tea plant has 30 chromosomes and that the number of the chromosome might be conserved in genus camellia.

Order: -Ericales

Superorder:- Asteranae

Chemical constituents: - Polyphenols, Flavonoids, Phenolic acid and their derivatives, Caffeine, Amino acid, Alkaloids, Tannins, Methylxanthine

Mechanism of action: - Many of the actions of tea and its constituents EGCG are now known for example EGCG bind several enzyme proteins to inhibit their activities induce oxidation stress in cell and initiates signal transduction by binding to cell surface protein.

Uses:-

Tea contains antioxidant so it is used to decrease the oxidation of harmful substances.

The tea reduces the risk of heart attack and stroke.

The tea may help in weight loss

Tea may protect your bones.

The tea is the central nervous system stimulating drug so it is used to stimulate CNS.

It is used in the cancer

The tea is also used in the treatment of cardiovascular disease.

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