

REVIEW ARTICLE

Rosacea Treatment using Essential oils and Plant Extract

Niharika Vyas* and Dr. Shikha Agrawal

Department of pharmaceuticals, Swami Vivekanand College of Pharmacy, Indore, M.P, India

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ABSTRACT

Rosacea is a chronic inflammatory condition of the facial skin that affects the blood vessels along with the pilosebaceous units. Rosacea is commonly seen in the people having fair complexion belonging to the north and the west Europe, although it may affect the people of any skin color. The symptoms may wax and wane during the short term, Rosacea may also progress with time. The patient complaints of flushing, blushing and sensitive skin, and their skin may be especially irritated with the topical preparations. FDA approved standard treatments include azelaic acid, metronidazole, oral antibiotics like tetracyclines, in particular minocycline and doxycycline. Topical treatments include clindamycin, subantimicrobial-dose doxycycline and sulfur products. Azithromycin and controlled release minocycline may be the options for Rosacea treatment, but they are not approved by the FDA as a proper agent for Rosacea treatment. Natural treatment may be an answer for the expensive prescribed medications by comparatively overcoming the side effects that are associated to them. By the use of natural moisturizing ingredients the patient may get the entire cure they need for effective Rosacea treatment; Aloe, Burdock, Chamomile, Vetiver, Rosemary, geranium and various extracts are the ingredients employed for treatment of Rosacea. The review outlines the Rosacea treatment by Cosmeceutical formulations constituting essential oils and herbal extracts. The objective of this study was to highlight the treatment of Rosacea using the herbal extract and essential oils overcoming the side effects produced by antimicrobial drugs.

Key Words: Rosacea, Cosmeceutical formulations, essential oils, extract.

INTRODUCTION

Rosacea is a chronic condition characterized by facial erythema (redness). Pimples are sometimes included as a part of definition. Unless it affects the eyes, it is typically a harmless cosmetic condition. It primarily affects the Caucasians of mainly northwestern European descent and has been as “Curse of the Celts” by some Britain and Ireland people. It may also affect people of other ethnicities. Rosacea affects both the sexes, but more often, it has almost three times occurrence in the women. It has a peak age of onset between 30 and 60.

Rosacea begins as redness on the central face across the cheeks, nose, or forehead, but can also less commonly affect the neck, chest, ears and scalp. In some cases, additional symptoms, such as semi-permanent redness, telangiectasia (dilation of superficial blood vessels on the face), red domed papules (small bumps) and pustules, red gritty eyes, burning and stinging sensations, and in some advanced cases, a red lobulated nose (rhinophyma), may develop. All of these features

appear in a given patient, and they are often characterized by remissions and exacerbations.

CLASSIFICATION:

There are four Rosacea subtypes and patients may have more than one subtype present. The subtypes are:

1. Erythematotelangiectatic Rosacea: Permanent redness (erythema) with a tendency to flush and blush easily. It is also common to have small blood vessels visible near the surface of the skin (telangiectasias) and possibly burning or itching sensations.
2. Papulopustular Rosacea: Permanent redness with red bumps (papules) with some pus filled (pustules) (which typically last for about 1-4 days); this subtype can be easily confused with acne.
3. Phymatous Rosacea: This subtype is most commonly associated with rhinophyma, an enlargement of the nose. Symptoms include thickening skin, irregular surface nodularities, and enlargement. Phymatous Rosacea can also affect

the chin (gnathophyma), forehead (metophyma), cheeks, eyelids (blepharophyma), and ears (otophyma). Small blood vessels visible near the surface of the skin (telangiectasias) may be present.

4. Ocular Rosacea: Red, dry and irritated eyes and eyelids. Some other symptoms include foreign body sensations, itching and burning.

Grading of Rosacea:

For the assessment of the patients, primary signs and symptoms may be graded as absent, mild, moderate or severe (0-3) and most secondary features may be graded simply as absent or present.

Primary Features

Flushing

Non transient erythmatic

Papules and Pustules

Telangiectasia

Secondary Features

Burning or Stinging

Plaques

Dry appearance

Edema

Ocular Manifestations

Peripheral Location

Phymatous Changes

Causes

Episodes of flushing and blushing are caused by certain triggers that play a part in the development of the Rosacea. Some of the causes that trigger the disease are:

1. Sun exposure.
2. Hot weather
3. Emotional stress
4. Heavy exercise
5. Wind
6. Alcohol Consumption

Diagnosis

Visual inspection by a trained person is sufficient for diagnosis. In other cases, when pimples or redness on the less common part of the face present, a trial of common treatments can be done so as to confirm a suspected diagnosis. As this may be easily confused with acne vulgaris and or seborrhoeic dermatitis, so the diagnose that has to be done is primarily a facial diagnosis. Although presence of the rashes is on the scalp or ears, it may occasionally appear in these areas.

Treatments

Treating Rosacea varies depending upon its subtypes. A subtype-directed approach to treat Rosacea is recommended to the dermatologists. Mild cases are not treated at all, or simply covered up with normal cosmetics. Therapy for the

treatment of Rosacea is not curative, best measured in the terms of reduction in the amount of the erythma and the inflammatory lesions decrease in the number, duration and in the intensity of the flares, and the concomitant symptoms of itching, burning and tenderness. The two primary modalities of Rosacea treatment are topical and oral antibiotic agents. Medications often produce a temporary remission of redness within a few weeks, the redness typically returns shortly after treatment is suspended. Long term treatment, usually one to two years, may result in permanent control of the condition for some patients. Lifelong treatment is often necessary, although some cases resolve after a while and go into a permanent remission.

Medications

Oral Tetracycline antibiotics (tetracycline, doxycycline, minocycline) and topical antibiotics such as metronidazole are usually the first line of defense prescribed by Doctors to relieve papules, pustules, inflammation and some redness. Topical azelaic acid such as Finacea (15%) or Skinore (20%) may help reduce inflammatory lesions, bumps and papules. Using alpha-hydroxy acid peels may help relieve redness caused by irritation and reduce papules and pustules associated with Rosacea. A Rosacea natural treatment might be the answer to the expensive prescription medicines or high dollar creams that do not provide the results they promised. With the natural moisturizers and other ingredients, a person can find everything that they need for an effective Rosacea treatment at home. Aloe, Burdock, Vetiver, Rosemary, Geranium are some of the plants employed for the Rosacea treatment.

Laser

Dermatological vascular Laser (Single Wavelength) or intense pulsed light (broad Spectrum) machines offer one of the best treatments for Rosacea, in particular the erythma (redness) of the skin. They use light to penetrate the epidermis to target the capillaries in the dermis alyer of the skin. The light is absorbed by oxy-hemoglobin which heats up causing the capillary walls to heat upto 70°C (158 °F), damaging them, and causing them to be absorbed by the body's natural defense mechanism. With a sufficient number of treatments, this method may even eliminate the redness altogether, though additional periodic treatments will likely be necessary to remove newly-formed capillaries.

ESSENTIAL OILS

An essential oil is concentrated hydrophobic compound containing volatile aroma from plants.

Essential oils are also known volatile oils, ethereal oils and aetherolea, or simply as the “oil of” the plant from which they were extracted, such as oil of clove. Oil is “essential” in the sense that it carries a distinctive scent, or essence, of the plant. Essential oils do not form a distinctive category for any medical, pharmacological, or culinary purpose.

Essential oils are generally extracted by distillation. Other processes include expression, or solvent extraction. They are used in perfumes, cosmetics, soaps and other products, for flavoring food and drinks, and for adding scent to the incense and household cleaning products. The technique and method used to produce essential oils was first mentioned by Ibn Al Baitar (1188-1248), an Andalusian physician, pharmacist and chemist.

Absorption and Effects of Essential Oils:

- **Glandular**

Essential oils probably exert their most powerful and direct pharmacological effects systematically via the blood supply to the brain. They also have an indirect effect via the olfactory nerve pathways to the Brain. Essential oil fragrances are absorbed through blood circulation and nerve pathways from the sinuses into the central glands of the brain, which control emotional, neurological and immunological functions.

- **Skin**

Essential oils are absorbed in minute quantities through the skin, depending upon the oil, dilution and application (carrier oil, compress, etc.). Many of the indications for specific oils include various skin conditions.

- **Respiratory**

Essential oils are inhaled during treatment, which have a direct effect on the sinuses, throat and lungs. Many essential oils are specific medicines for respiratory conditions.

- **Circulation**

Many essential oils have beneficial effects on circulatory problems, both through dermal and respiratory absorption. These oils enhance the circulation stimulating effects of massage.

PLANT EXTRACT

Plant-derived substances have recently been an interest factor owing to their versatile applicability. The medicinal plants are a rich source of drugs of traditional systems of medicines, nutraceuticals, food supplements,

pharmaceutical intermediates and chemical molecules for the synthetic drugs. An extract is the separation of the medicinally active portions of plant tissues using selective solvents through standard procedures. The products that are then obtained from the plants are relatively the mixtures of the metabolites, in liquid or semisolid state or in a dry powder form, can be administered orally or externally. They include the decoctions, infusions, fluid extracts, tinctures etc.

The extracts obtained may be used as medicinal agent in form of tinctures, fluid extracts or can be used in a modified form as tablets and capsules. The products contain mixture or any of the plant metabolites such as glycosides, flavonoids, terpenoids and alkaloids. The extract employed in the study has been used from long decades in the treatment of skin disorders, in the treatment of microbial diseases and has proven to show anti-inflammatory properties in animal models. Laboratory studies done on the active ingredient in the extract has shown to reduce inflammation, promote mucosal secretion and soothe irritation.

CONCLUSION

The Rosacea patients no longer need to be worried about the signs and symptoms. The various available natural methods that are used to control and treat Rosacea offer a wide advantage to the patients. The study basically intends to treat the disease by concentrating upon the reduction of symptoms and gradually eradicating it by formulating a Herbal extract and essential oil based cosmetic product, that when used topically, provides no side effect that have been mostly associated with the Antibiotics, rather overcoming them and presenting the patient with a disease free life.

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