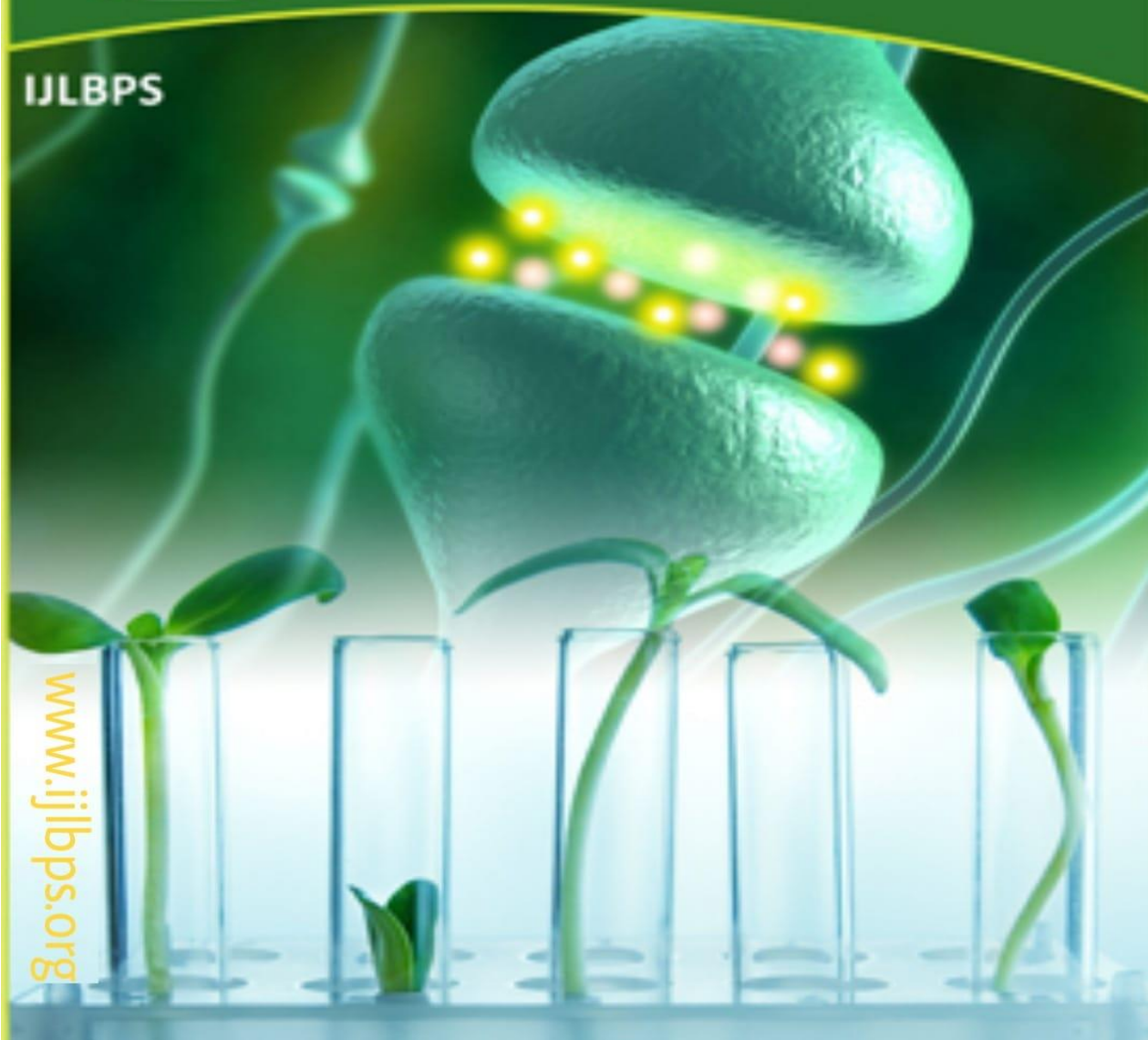




ISSN 2395-650X

International Journal of
Life Sciences Biotechnology Pharma Sciences

IJLBPS



www.ijlbps.org

E-mail: editorijlbps@gmail.com editor@ijlbps.org

A review on herbs: as therapeutics and cosmetics Kumudhavalli M

Abstract

The composition of the herbal formulation described in the review includes at least two plant extracts in the form of oil or powder or mixtures thereof, with the plant extracts chosen from the group consisting of *Gymnena sylvestrae* water extract 3 to 6wt.%, *Tridax procumbens* water extract 3 to 6wt.%, its methanolic extract 4 to 6wt.%, *Allium sativum* oil hexane extract, and *Allium* weight percent, piroxicam 1-2. %, Turmeric powder, 0.1-1.0 wt. carbopol concentrations of 1% to 4% by weight in an aqueous cream or gel basis. 20-40 wt. % emulsifying ointment with a wide range of uses. %, a preservative between 0.05% and 0.3%, and a humectant between 1% and 4% by weight. percentage, plus enough water to equal 100 grams. %.

Allium sativum, oilhexane, anti-inflammatory, *olibanum resinoid*, and carbopol are some examples of keywords.

Introduction

An herbal combination for treating general skin disorders, including: (a) at least two plant extracts in the form of oil or powder or mixtures thereof, chosen from the group consisting of *Gymnena sylvestrae* water extract 3–6 weight percent, *Tridax procumbens* water extract 3–6 weight percent, its methanolic extract 4–6 weight percent, *Allium sativum* oilhexane extract 1–3 weight percent, and dr.Herbal for cosmetic use: an anti-allergic herbal formulation containing: a) plant extracts in powder or oil of medicinal plants, specifically *Tridax procumbens* water extract at concentrations of 3% to 6% wt% and gum *Olibanum* powder at concentrations of 4% to 7% in their natural form; b) a gel base containing carbopol at

concentrations of 1% to 4% wt%.1 A herbal formulation useful for cosmetic applications as a moisturizer containing the following ingredients: a) at least two plant extracts in the form of emulsifying ointment (20–40 wt%), preservatives (0.05-0.3%), and a humecant (1-4 wt%) chosen from propylene glycol (1–3 wt%) and Glycerin (1–4%), and d) the balance being water to make 100% wt%. Ingredients: a) a gel base containing carbopol ranging from 2% to 6% by weight or an aqueous cream base containing 3% to 6% by weight of aloe vera (dried juice), 3% to 6% of *Tridax procumbens* water extract, 3% to 6% of Gum *Oilbanum*

Department of Pharmaceutical chemistry. Tamil Nadu

meal, and 3% to 6% of Gum Olibanum powder; b) optionally any drug having anti-inflammatory and wound healing property. Discoloration can be treated with this herbal formulation, which consists of the following: a) plant extracts in powder or oil of medicinal plants, specifically Gum Olibanum resinoid, *Tridax procumbens* water extract 3% to 6%, and Gum Olibanum powder; b) a gel base containing carbopol at concentrations of 1% to 4%, or an aqueous cream base containing 20% to 40% emulsifying ointment. This review is about a herbal cream that has therapeutic and cosmetic uses. It may be used to treat dry skin, skin allergies, cracked heels, and it has depigmenting and antifungal properties. The herbs included in the present invention's composition are well-respected for their ability to reduce inflammation, counteract allergies, and speed the healing of wounds. Chopped hands, hyperkeratosis, and small burns and cuts might all benefit from this mixture.

The following are components of a herbal composition used for medicinal and cosmetic purposes, in particular to treat discoloration:

Powdered or oil-based medicinal plant extracts, such as Gum Olibanum resinoid or *Tridax procumbens* water extract (3–6 wt.). Powdered Olibanum Gum, %.(b) an aqueous cream basis having 20-40 wt.% emulsifying ointment, or a gel base containing carbopol at a concentration of 1%-4% by weight. %, a preservative between 0.05 and 0.30 percent, and a humectant between 1.1 and 4.0 percent by weight. %.

(c) humectants, often propylene glycol at concentrations between 1% and 3% by weight. %, with the weight of the glycerine being between 1-4. %. To make up the difference, (d) 100 wt is made up of water. %.

Benefits include little recurrence of cracks in the heel after treatment, especially when compared to currently available solutions on the market. The skin-moisturizing effects of the proposed formulations make them suitable for use in the cosmetic treatment of dry skin conditions. The current formulas are quite effective in preventing the darkening of skin caused

by scrapes, abrasions, wounds, and acne.³

It is possible to infer the nature of the compounds being extracted from their historical use, which is an important consideration in the quality control of herbal medicines and cosmetics. The amount of active ingredients in a herbal tea, as measured in milligrams per gram of air-dried material, is an example of hot water extractable matter. Essential oil analysis using steam distillation is a subset of assay. A wide variety of cutting-edge chemical analytical techniques, such as UV/VIS spectroscopy, TLC, HPLC, GC, MS, or a combination of GC and MS (GC/MS), can be used when the active constituents (such as sennosides in *Senna*) or markers (such as alkydamides in *Echinacea*) are known. The quality of herbal duggs is affected by a number of factors that do not apply to synthetic drugs^{4, 5}.

Natural remedies often consist of a number of different ingredients. In most situations, the identity of the active principle(s) is/are unknown. There may be a lack of commercially-accessible selective analytical procedures or reference molecules. The chemical and natural composition of plant materials varies. There are chemo-types of plants and chemo cultivars. Raw materials might be of varying quality and origin. The technique of extraction and polarity of the extracting solvent, the instability of ingredients, etc., as well as the methods of harvesting, drying, storing, transporting, and processing, all have an impact. For the purpose of creating an effective herbal medication, certain rules must be adhered to. Plants need to be correctly identified, screened for phytochemicals, and standardized. There are several measures that must be taken to ensure the quality and uniformity of herbal cosmetics. The quality of a plant product is determined by the prevailing conditions during growth, and accepted Good Agricultural Practices (GAP) can control this. The source and quality of raw materials, GAP in farming, and manufacturing processes all play pivotal roles in ensuring the quality and stability of herbal preparations^{6, 7}. Seeds are one example.

methods of harvesting, drying, and storing, as well as the selection, climate, and fertilizer usage during cultivation. In reality, GAP processes are and always will be essential to quality assurance. The quality

and, by extension, the therapeutic value of herbal medicines can be greatly impacted by factors like whether or not fresh plants were used, the age and part of the plant collected, the period, time, and method of collection, the processing temperature, the exposure to light, the availability of water, nutrients, drying, packing, transportation of raw material, and storage.

Herbal medication quality, safety, and effectiveness may be affected by elements outside these norms, such as

extraction technique, contamination with microbes, heavy metals, and pesticides. Most of these issues may be avoided or at least mitigated by relying on plants grown in a controlled environment rather than those harvested in the wild. However, occasionally the active ingredients are destroyed by enzymatic processes that persist for lengthy periods of time from harvesting to sale, leading to a variance in composition. The raw materials and the herbal formulations should be standardized and quality controlled appropriately.^{8, 9}

By adding excipients or combining herbal medications or herbal drug preparations, the standardized herbal drug is adjusted to a set content of a component or group of compounds with recognized therapeutic efficacy. There is a wide range in the content, quality, and therapeutic benefits of botanical extracts derived from raw plant material. High-quality extracts with constant quantities of specified chemicals are called "standardized extracts," and they are subjected to stringent quality controls throughout the whole cultivation, harvesting, and production processes to ensure this. There is currently no standardized regulatory definition for dietary supplements. Therefore, the meaning of "standardization" might be rather broad. When referring to consistent production processes, some producers use the word "standardization" inaccurately, thinking that just adhering to a formula makes a product such. Therefore, it is not accurate to assume that a high-quality supplement would include the term "standardized" on its label. Marker substance(s) should be created for analytical and standardization reasons when the active principles are unknown. Chemically specified elements of a herbal medication, known as "marker compounds," are crucial to the efficacy of the final product. In a

perfect world, the chemical markers selected would also be the active ingredients in the plant. Two distinct forms of standardization exist. For "real" standardization to take place, one must first establish that a certain Phytochemical or set of components is responsible for the desired effect. For instance, ginkgo contains 26% ginkgo flavones and just 6% terpenes. These items are now classified as phytopharmaceuticals because of their high concentration and do not represent the full plant. These concentrated forms of herbs are sometimes far more effective than the full plant. The other type of standardization is based on manufacturers guaranteeing the presence of a certain percentage of marker compounds; these are not indicators of therapeutic activity or quality of the herb.^{10, 6, and 8}The process may result in the loss of efficacy and may increase the potential for adverse effects and herb-drug interactions. The quality of the APIs in herbal medication preparations is directly related to the manufacture and basic processing of the medicinal plant or herbal drug. This is because straightforward analytical procedures are scarce and naturally occurring therapeutic herbs are notoriously complicated. There must be a thorough quality assurance system in place before, during, and after every stage of production (from planting to harvesting to primary processing to handling, storage, packing, and distribution) in order to accurately identify and describe the active ingredients using only chemical or biological methods. All of these are vulnerable to deterioration and adulteration, particularly microbial contamination. Good agronomic, harvesting, and manufacturing techniques for herbal starting materials are crucial for reducing the likelihood of these unintended consequences.^{11, 12}

Those involved in the cultivation, processing, and distribution of medicinal plants and herbal medications have a responsibility and a part to play in this context. Herbal product producers and distributors need to undergo remarket evaluations of all pharmaceuticals before they are given the green light for sale in order to ensure they are in compliance with quality control standards and good

manufacturing practices. Products on the market are routinely tested to ensure they are free of harmful substances and contain only those listed on their labels.^{11, 12}

preparation and proper storage are essential. The herb is preprocessed by chopping and grinding to reduce its size in preparation for processing, and appropriate storage practices preserve the herb's active Phytochemicals.¹³

Because of the poor extract yield, processing is an essential part of herbal manufacturing. Herbs, which are typically cooked as decoctions, may now be processed using high-pressure water extraction, a technology based on traditional procedures. In order to create herbal products with better yield, reduced operating costs, and quicker production periods, new revolutionary technologies like Supercritical Fluid Extraction (SFE) need to be developed, in which supercritical fluids like carbon dioxide under high pressure are used to make herbal extracts. Processing is followed by packaging and then sales.¹⁴

In order to ensure the greatest possible quality in the research, production, and distribution of pharmaceuticals, the medical and health-related businesses adhere to a set of guidelines known as Good Manufacturing Practice (GMP). In Malaysia, the National Pharmaceutical Control Bureau (NPCB) is responsible for issuing Good Manufacturing Practice (GMP) certification in the form of an annual Manufacturing License, which may be cancelled at any time if the manufacturing facilities are found to be in violation of GMP regulations. Because GMP guarantees the safety and purity of the herbal product, only manufacturers that use it may sell herbal cosmetics goods. There is a significant problem with the lack of standardization in the production of herbal products and medicines.¹⁵ Manufacturers that plan to export their goods must guarantee that their target markets recognize their GMP standards. By maintaining a constant concentration of active compounds throughout the manufacturing process, standardization ensures that herbal extracts and Phytochemicals maintain their full therapeutic potential. To guarantee the quality, this procedure calls for experts in both Phytochemical analysis and process technology. As herbal items undergo further processing and standardization, their value rises.

With the average Phytochemical yield of herbal

The marketing of herbal cosmetics involves a number of stages, from the cultivation of herbal crops through the distribution of finished cosmetics. Once the plant has been harvested, chemical engineers get engaged since speedy

extracts sitting at about 5%, it's crucial to hone your skills in process optimization in order to maximize profits. Lowering of utility consumption Increase in the production of phytochemicals Minimizing the Use of Solvents in Extraction Faster processing times Phytochemical processes sometimes mirror or are identical to chemical engineering unit activities. Compares and contrasts the processes of conventional chemical engineering and Phytochemical processing, highlighting their commonalities in terms of unit operations and Phytochemical processing. The phytochemical sector may clearly benefit from various branches of chemical engineering. Basic information that chemical engineers should know more about includes:

Natural product chemistry (or organic chemistry)

HPLC, LC-MS, and NMR are all examples of analytical techniques.

As most research in Phytochemical processing has been conducted by chemists in terms of chemical isolation and pharmacists in terms of bioactivity, there is a need for fundamental chemical engineering focused research in the area of separation technology, such as SFE, natural product isolation, and purification.

Due to a lack of information on the physical and chemical characteristics of the Phytochemical or herbal media to be treated, process design and optimization is presently an iterative process based on trial and error. Furthermore, there is a pressing need to acquire process design expertise for herbal extraction, either on a theoretical basis or via pilot plant trials, since often only laboratory data is available^{13, 16}. The majority of herbal extraction layouts are now created using information gleaned from food technologists. As a result, chemical thermodynamic data and design methodologies are often overlooked. Many of the approaches used to create these models of the process are exclusive to the piece of machinery that was studied, making them difficult to use or reproduce. Herbal extraction systems require more first principle modeling tools for optimization and scalability.



Burgandy

Heena Based Hair Colour

Summary and Conclusion

Products, often known as herbal cosmetics, are created by combining legal cosmetic substances. Natural cosmetics, which include herbal cosmetics, go by both names. Aloe Vera gel, cucumber extract, honey, lemon oil, etc. are just few of the many natural elements used in herbal cosmetics. Herbal cosmetics typically consist of herbal skin care products, herbal hair care products, herbal lip care products, herbal eye care products, herbal soaps, herbal fragrances, and herbal oils. Controlling the quality and reliability of a produced product is what quality control is all about. Microscopical analysis, identification of ash, heavy metals, foreign materials, and microseptic contamination are all part of the testing process for herbal cosmetics. It is crucial to do a marketing study of all herbal cosmetic goods. Herbal cosmetics for the face, hair, lips, eyes, and elsewhere are widely available on the market. When compared to their synthetic counterparts, herbal cosmetics provide superior aesthetic and medicinal benefits.



Heena

Herbal cosmetics are those that use plant-based



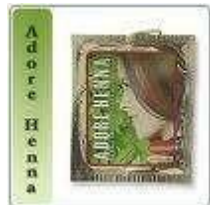
Brown



Chest Nut Brown
Natural Black



components and extracts. Herbal cosmetics are superior since they are created using only natural ingredients like plants and flowers. Natural cosmetics made from herbs are also called



ayurvedic cosmetics. From the time when men first began using cosmetics, herbal alternatives have been available. These items have been in use for a very long time by humans. Makeup products like lotions, faceproducts such as face masks, exfoliating scrubs, hair oils, hair colors, shampoos, conditioners, lipsticks, blush-ons, eyeliners, mascaras, foundations, eye shadows, fragrances, soaps, etc. Natural ingredients including oils, waxes, natural colors, natural perfumes, and plant parts like leaves, flowers, etc. are included into the creation of all of these cosmetic items using specialized formulation techniques. Effective and safe quality assurance testing for herbal cosmetics is crucial. Therefore, herbal cosmetics need to go through quality control testing. Initial plant identification relies mostly on microscopic analysis. Safe and high-quality beauty products need further testing for impurities including ash, pollutants, and heavy metals. Herbal cosmetics go through a lengthy production process that spans from cultivating the necessary herbs to selling the finished goods. Herbal product marketing research in the present day calls for cutting edge methods. Turmeric skin cream by vicco India ltd., shampoos and conditioners by Himalaya Company India, etc. are only a few examples of well-known branded items. A herbal concoction with medicinal and aesthetic uses for the care of various skin conditions. Enhancing the look of one's hair, complexion, lips, eyes, etc..

References

1. Prakash Vaman Rao Diwan (C/O Indian Inst. of Chem. Tech., Hyderabad, 500007,IN)
2. Bhamidipalli Subrahmanya Sitaramam (C/O Indian Inst. of Chem. Tech., Hyderabad-500007,IN)
3. Sistla Ramakrishna (C/O Indian Inst. of Chem. Tech., Hyderabad-500007, IN)
4. Schier W., Sachsa B. and Schultze, W. (1994). Dtsch Apoth. Ztg.
5. EMEA. 91998). Quality of Herbal Conventionh Centre, Kuala Lumpur, 14 October.
6. WHO (1998). Basic Tests for Drugs, Pharmaceutical Substances, Medicinal Plant Materials
7. and DosageForms. World Health Organization, Geneva.
8. WHO (2002).General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine. World Health Organization, Geneva.
9. EMEA. (2005).Guidelines on Quality of Herbal Medicinal Products/Traditional Medicinal Products, EMEA/CVMP/81400 Review. European Agency for the Evaluation of Medicinal Products (EMA), London.
10. www .ayurvedic-herbal-products.com/herbal-extracts.html
11. Baur R.. (1998). Drug Inf. J.
12. WHO (1992).Quality Control Methods for Medicinal Plant Materials. World Health Organization, Geneva.
13. De Smet. P.A.G.M. (1999). Drug Inf. J.
14. Adenan M. I. (2003). Malaysian herbs and herbal products. In A Two and Half Day course of Herbal and Phytochemical Processing, CEPP short course notes. Chemical Engineering Pilot Plant, UTM, Skudai. January 7 -9 .
15. Ahmed R. S. and Sharma S. B. (1997). Biochemical Studies on Combined Effects of Garlic (*Allium sativum* Linn) and Ginger (*Zingiber officinal* Rosc.) in Albino Rats. Indian J. Experimental Biology.
16. Arif M. T. (2002). Keynote address: Traditional/Complimentary Medicine in the Malaysian Healthcare System. 4 International Conference for Traditional / Complimentary Medicine, Sunway