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NEWER CONCEPT OF NEUTRACEUTICALUSED IN SKIN, HEALTH CARE TREATMENT

[1]D. K. Sanghi and *Rakesh Tiwle

[1]Shri Laxmanrao Mankar Institute of Pharmacy, Amgoan, Gondia, Maharashtra, India-441902.

*Shri Rawatpura Institute of Pharmacy Kumhari, Durg C.G. India-490042.

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***Corresponding Author**
Rakesh Tiwle
Shri Rawatpura Institute of Pharmacy Kumhari, Durg C.G. India-490042.

ABSTRACT

Nutraceutic is a term derived from “nutrition” and “pharmaceutics.” The term is applied to products which can be isolated from herbal products, supplements or process from foods cereals, They are aggravated with the exclusive, high-tech disease treatment approach in the main modern medicine. Today’s consumer is now looking for balancing or substitute beneficial products and that’s why nowadays the demand of nutraceuticals is increases, for that people have tried to achieve a better quality of healthy life by eating more vegetables, fruits, sprout and cereals. The perpouse of this study is to aware the society form the nutraceuticals.

KEYWORDS: Anti aging, herbal tea, Potential herb, Green Tea.

INTRODUCTION

A NEUTRACEUTICAL is any substance that is a food or a part of food and provides medical or health benefits, including the prevention and treatment of disease”. Neutraceutical is a pharmaceutical alternative which application physiological benefits.[1] "Neutraceutical" are principally Skin aging is continuously subjective by various internal and external factors like biologic progression of cells, ultraviolet (UV) radiation, tobacco, nutritional deficiencies etc. Skin aging problems are roughness, wrinkling, pigmentation change, loss of elasticity, and decreased firmness. The purpose of this review is to aid dermatologists in understanding the mechanism of action of popular nutraceuticals in skin care treatment. The largest organ of the body is the skin body’s, environmental agents such as pathogen, ultraviolet (UV) radiation exposure, chemical threats, temperature changes and even dehydration.[2] There are

of three main layers with different underlying structures: (a) the epidermis, (b) the dermis and (c) hypodermis or subcutaneous.

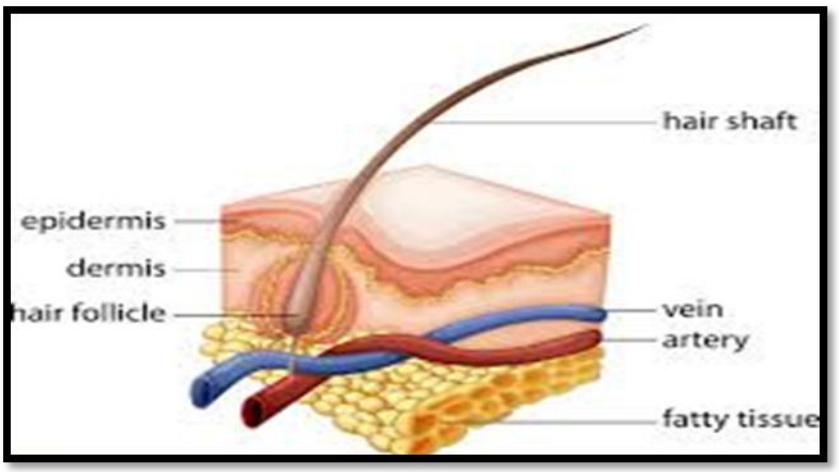

Figure no. 1: Anatomy of Skin.

Herbal products and supplements are intended to maintain health or treat health problems. However, as mentioned above, they are not regulated by the FDA.[3] This is because the FDA considers herbal supplements to be food, not drugs. An herbal supplements label can say how it might help, but it cannot claim to be a treatment for any disease or illness. According to the FDA, "Dietary supplements are not intended to treat, diagnose, cure, or alleviate the effects of diseases."

The U.S. National Library of Medicine provides a good guide that shows what specific herbs and supplements may be used for. The following herbs, for example, may be used in the following ways.[4]

- American ginseng may be taken to reduce stress, boost the immune system, improve digestion, and more.
- German chamomile may be taken to improve sleep quality, reduce anxiety, and help gastrointestinal conditions.
- Cinnamon may be used to treat gastrointestinal problems, loss of appetite, and diabetes.

Figure no 2: Neutraceuticls herb.

CATEGORIES OF NUTRACEUTICALS[5]

These can be grouped into the following three broad categories:

1. Substances with established nutritional functions, such as vitamins, minerals, amino acids and fatty acids - Nutrients

2. Herbs or botanical products as concentrates and extracts - Herbals

3. Reagents derived from other sources (e.g. Pyruvate, chondroitin sulphate, steroid hormone precursors) serving specific functions, such as sports nutrition, weight-loss supplements and meal replacements-Dietary supplements.

NUTRIENTS

Nutrients are the substances that provide nourishment essential for the maintenance of life and for growth.[6] Water and fat-soluble vitamins and antioxidants are the most commonly known nutrients and their potential health benefits have been associated with dietary intake or supplementation. Antioxidants help in the prevention of cancer and cerebrovascular diseases such as atherosclerosis.[7] It has been found that the combination of vitamin E, C and beta carotene can be used in the reduction of low density lipoprotein oxidation and subsequent atherosclerosis.[8] Vitamin supplements stimulate the production of macrophage and T cells and thus increase antibody titre response to clinically relevant vaccines.

HERBALS

Plants have been used for the treatment of numerous acute and chronic diseases since ages and such traditional medicine is still widely practiced today.[9] Various parts of plants like seeds, berries, leaves, roots, flowers and bark are used for medicinal purposes which contain numerous nutraceuticals. The accumulation of knowledge of such plants over hundreds of years can help in finding effective means of ensuring proper health care.[10]

DIETARY SUPPLEMENTS

A dietary supplement is intended to provide nutrients that may otherwise not be consumed in sufficient quantities.[11] Supplements as generally understood include vitamins, minerals, fiber, fatty acids, or amino acids, among other substances.[12] There are more than 50,000 dietary supplements available and the most common ones are multivitamins.

BENEFITS OF NUTRACEUTICALS

Since years, nutraceuticals have played an important role in the overall well-being of humans. Several bioactive molecules are being identified to possess health benefits which continue to garner research interest so that safe and cost-effective molecules can be discovered for oral administration.[13]

GREEN TEA

Green tea contain catechins and metabolites both are bioavailable in the skin as well as in the gut, this finding was supported in another small human trial, skin oxygen tension improved in which oxygen tension is a measurement of the oxygen content in the skin's blood vessels. Improved skin oxygen tension indicates improved oxygen flow to the skin, which is believed to support overall skin health.[14] However, more studies are needed to understand how improved skin oxygenation may improve the skin in health. Other studies assessing green tea catechins for their protective effects against ultraviolet radiation did not find significant changes to inflammation biomarkers after green tea catching consumption.[15] Extra virgin olive oil is known to contain phenolic and polyphenolic compounds with anti-inflammatory properties. Some studies have assessed these phenolic and polyphenolic compounds for their antioxidant activity and roles in inflammation.[33] One such compound is olive oil's polyphenol tyrosol, which was found to protect skin cells from ultraviolet radiation-induced cell death.

Figure no 3: Green Tea herb.

Table no 1: Nutraceuticals Available in Market.

Brand name	Components	Function	Brand name
Betatene	Carotenoids	Immune function	Betatene
Xangold	Lutein esters	Eye health	Xangold
Lipoec	α-lipoic acid	Potent antioxidant	Lipoec
Generol	Phytosterol	CHD reduction	Generol
Premium probiotics	probiotics	Intestinal disorder	Premium probiotics
Soylife	Soyabean phytoestrogen	Bone health	Soylife

POTENTIAL HEALTH BENEFITS[16]

Over the years nutraceuticals have attracted considerable interest due to their potential nutritional, safety and therapeutic effects. They could have a role in a plethora of biological processes, including antioxidant defenses, cell proliferation, gene expression, and safeguarding of mitochondrial integrity.[17]

Therefore nutraceuticals may be used to improve health, prevent chronic diseases, postpone the aging process (and in turn increase life expectancy), or just support functions and integrity of the body.[18] They are considered to be healthy sources for prevention of life threatening diseases such as diabetes, renal and gastrointestinal disorders, as well as different infections.[19]

A wide range of nutraceuticals have been shown to impose crucial roles in immune status and susceptibility to certain disease states. They also exhibit diseases modifying indications related to oxidative stress including allergy, Alzheimer's disease, cardiovascular diseases, cancer, eye conditions, Parkinson's diseases and obesity.[20]

Figure no. 4: Potential herb Supplement.

TREATMENT FOR OSTEOARTHRITIS[21]

Osteoarthritis (OA) is the most common form of arthritis, these disease is comnes under the (RA) rheumatoid arthritis, millions of people throughout the worldwide facing these problems. It will; happen the protective cartilage on the ends of the bones wears down over time. Although osteoarthritis can damage any joint in the body, the disorder most commonly affects joints in hands, knees, hips and spine.[30] There's no known cure for osteoarthritis, but treatments can help reduce pain and maintain joint movement. Several varieties of glucosamine supplements which include sulfate, hydrochloride and n-acetyl salts are sold in pharmacies, supermarkets and health food-stores.

Figure no. 5: Potential herb Supplement for osteoarthritis.

CURCUMIN (FROM TURMERIC ROOT)

Evidence suggests the turmeric root has anti-inflammatory properties.[21] The active component of turmeric, called curcumin, makes up only about 3% of turmeric, so you may need to eat a lot of turmeric to get noticeable benefits. An alternative to eating turmeric every day is to take a supplement.[31]

VITAMIN D

Vitamin D deficiency is associated with the development of osteoarthritis[22] as well as autoimmune arthritis, such as psoriatic arthritis[23] and rheumatoid arthritis (RA).[24] Low vitamin D levels are also associated with more and/or worse rheumatoid arthritis symptoms.[25,26] Other medical conditions, such as osteoporosis, muscle weakness, hip fractures, diabetes, cancer, and heart disease, are also associated with low vitamin D levels.

OMEGA-3 FATTY ACIDS

Most omega 3 supplements come in the form of fish oil. However,[27] I recommend an omega 3 supplement derived from plants, such as flax seeds.[32] A plant-based supplement helps avoid the risk of mercury contamination found in some poorly manufactured fish oil supplements.[28] A plant-based omega-3 supplement may also be preferable if you follow a vegetarian or vegan diet. Keep in mind that omega 3 fatty acids in fish oil can be different than those in plant-based sources. (Fish oil contains eicosapentaenoic acid [EPA] and docosahexaenoic acid [DHA] while flax seeds, for example, contain alpha-linolenic acid [ALA].) This difference may affect the dosage.[29]

CURRENT STATUS

This is rapidly growing industry (7-12% per year) with more than millions of people in the world using these natural products. The global nutraceutical market to reach 500 billion by 2015. Nutraceutical help in treatment and prevention of diseases are made from herbal/botanical raw material. According to recent analysis from Euro monitor, international global sales of health and wellness products are on track to reach a record of about 1 trillion by 2017.

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