



A Review: Designing of Polyherbal Formulation for Metabolic Disorders

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ABSTRACT

The compositions' raw materials were obtained on the market. Ingredients were all approved via Sieve No.80 and combined in unequal proportions to produce uniformly blended formulas. After that, they were assessed. Consumption of Triphala & Senna churna produced the desired effects on the body metabolic problems. For the treatment of the constipation, the churna had acceptable results. We have come to the conclusion that Constipation is effectively treated with the developed polyherbal mixture churna. The primary goal of the project is to create a polyherbal formulation for metabolic disorders.

KEYWORDS: Triphala & Senna Churna; Herbal; Ayurveda; Churna; Triphala; Senna.

INTRODUCTION:

Manufacturing of Herbal and Ayurvedic products is simple and also good request demand for these products. According to the WHO as much as 80% of the world's population relies on traditional drug. With increased enterprises about rising health care costs, some governments are encouraging the use of indigenous form as of drugs rather than precious medicines. This has been a strong motorist for reanimation of herbal and ayurvedic drug in the country. Traditional treatment with ayurveda and other herbal drugs etc is well established and extensively conceded to be safe effective. The indigenous system of drug, viz., Ayurveda, The demand for herbal drugs in EU countries was estimated to be around 6.6 million. Metabolism refers to the various chemical processes that take place in the body in order to maintain life and normal function.

Metabolic

Diseases are conditions that impact the metabolism in any way.

As a result, certain persons may be affected.

To stay healthy, you can't generate too much or too little of a material.

Metabolism is a term that refers to the process of converting food into energy.

covers the biochemical mechanisms that enable people to develop, reproduce, repair damage, and maintain their health. react to their surroundings

A metabolic disorder is a condition that interferes with these functions.

It could, for example, impact the availability of enzymes for food digestion or the efficiency with which cells make energy.

There are a variety of illnesses that create various symptoms and consequences in the body.

We'll go over some of them in this article. metabolic problems that are common.

The term "metabolism" refers to the continuous biochemical processes that take place in the body. Living creatures' operations that keep them running. It is the result of a delicate balancing act between two processes. Catabolism is the breakdown of bigger molecules into smaller molecules to generate energy.

For Breaking down carbohydrate molecules into glucose, for example, could be part of this process.

Anabolism is the process of consuming energy in order to produce new cells, maintain body tissues, and store fat. energy.

Plant Profile

Plant Information

Triphala is a colourful medication that is used to treat a variety of ailments. Pharmacological conditioning is a term that refers to the process of preparing a Triphala is made up of three herbs: Terminalia chebula, Terminalia chebula, and Terminalia cchebu Emblica officinalis, Chebula Retz (Haritaki), Terminalia bellerica Roxb (Bibhitaki), and chebula Retz (Haritaki). The pericarps of these drugs are usually found in equal proportions in the expression. Triphala A Tridoshic Rasayana, a therapeutic treatment, has been described in an old Ayurvedic textbook. Agency on the three humours or indigenous rudiments with balancing and energising products Vata, pitta, and kapha are the three doshas in Ayurveda.

Terminalia chebula Retz and *Terminalia bellerica* Roxb are two species of *Terminalia*. *Emblica officinalis* Gaertn has a chilly energy, whereas *Emblica officinalis* Gaertn has a warm energy. Triphala is a herb that is used to treat a variety of ailments. As a result, the combination of all three is balanced, making it beneficial. Because Triphala is a blend of all three, it is well-

The Charaka and Shusrutha Samhita are two Indian textbooks. The various parcels and personalities of the medicine's colourful ingredients are described below.



Fig No.1 Triphala plant

Haritaki

Terminalia chebula Linn.) is a plant with a Latin name of Haritaki (*Terminalia chebula* Linn.

Family: Combretaceae

Classical name: Haritaki

Sanskrit synonyms: Haritaki, Pathya, Abhaya, Avyatha, Vayastha, Haimavati, Shiva

Hindi name: Harre, Harad

Chebulic Myrobalan is an English name for a Chebulic Myrobalan.

Swaroop (Habit): A moderate sized/large deciduous tree. Found in MP, West Bengal, Karnataka, and Maharashtra in India, as well as Burma and Ceylon



Fig no. 2: Seeds of terminalia chebula Linn ayurvedic pharmacodynamics.

Pancharasa is a type of rasa (Kashaya predominance, Lava rahita)

Laghu, Ruksha are the gunas.

Virya: Ushna

Madhura: Vipaka

Tridosha hara is a Prabhava.

Kaphapittasamaka is the most common doshakarma.

Part used: Fruits

Therapeutic Uses: The fruit is a well-known herb medicine that is frequently utilized in the Indian system of medicine. It is a common ingredient in a wide range of formulations.

The mature fruit has purgative, tonic, and anti-inflammatory properties.

It has a carminative effect and helps to strengthen the brain, eyes, and gums.

The unripe fruit has astringent properties and can be used for diarrhoea and dysentery.

Bibhitaki

Latinname:TerminaliabellericaRoxb.

Family:CombretaceaeClassicalname:VibhitakaSanskritsynonyms:Aksha,Kaliphala,Bhutavasa,Kalidruma,KarnaphalaHindiname:Baheerha,BaherhaEnglis

hname:Swaroopo(Habit):Alargedeciduoustree

Bibhitaki Latin name:Terminalia bellerica Roxb.

Classicalname:Vibhitaka

Sanskritsynonyms:Aksha,Kaliphala,Bhutavasa,Kalidruma,Karnaphala

Hindiname:Baheerha,Baherha

Englishname:BellericMyrobalan

Swaroopo(Habit):Alargedeciduoustree



Figno.3:Seedsofterminaliabellericarox.

Ushna Virya

Vipaka-Madhura

Tridoshagna- Prabhava

Kaphahara – Dosha karma

Partsused–Fruit

Fruit includes 17 percent tannin and gallo-tannic acid (coloring) in its chemical composition.resin) and matter.

Greenish yellow oil is found in the seeds

The bark is useful in the treatment of asthma and leucoderma. The produceIt is used for bronchitis, sore throats, and is digestible, laxative, and anti-helminthic.robblems TheOil is an excellent hair treatment.The fine powder is used to new cuts and wounds.As an astringent and styptics agent, it is used to stop bleeding. The Beleric myrobalan's fruit

It's a component of three major myrobalans (embelic, beleric, and myrobalan).Triphala (chebulic myrobalans) is a popular herb.

Amalaki

Emblica officinalis Gaerth is the Latin name for Amalaki.

Family:Phyllanthaceae

Amalaki, Dhatri are the traditional names for this plant.

Hindiname:Awala,Amla,Aonla

Amalaki, Dhatri, and Vyastha are Sanskrit names for the same thing. Indian gooseberry is the English name for this plant.Swaroopo (Habit): A tree of medium size.

ium-sized farms.on a grand scale



Fig no.4:Fruits of emblicaofficinalisgaerth.

Pharmacodynamics in Ayurveda

Pancharasa is a type of rasa (Amla predominance and Lavanarashtra)

Guna:Laghu,Ruksha,Sita

Virya:Sita

Vipaka:Madhura

Prabhava:Rasayan

Doshakarma:Tridoshhara,Pittasamaka(mainly)

Partsused:Fruits

Fruit is a well-known source of Vitamin C, and its chemical composition reflects this. Seedscontains

An essential oil, phosphatides, and a fixed oil Richintannins are found in fruits, barks, and leaves.Fruits are the most beneficial portion of the plant and are used medicinally in a variety of ways.

Diverse diseases take on various forms. Fruits are used to replenish Vitamin C and other nutrients.There are also additional contents.

It is one of the most widely used, well-known, and well-respected medications in the world.

Medicine practised by indigenous peoples. It's used to treat anaemia, bladder irritation are all symptoms of anorexia.

Senna

sLatinname:CassiaAngustifolia

VahlFamily:Leguminosae\sClassicalname:Nilavirai

Senna Ki Patti, Senai, Senna Ki Patti, Senna Ki Patti, Senna Ki Patti, Senna Ki P

Sanskritname:Swarnapatri

Indian Senna, Alexandrian Senna are two different names for the same plant.

Swaroopa (Habit): A tree of medium size.

It's a tiny herb that grows to a height of 2-3 feet.

It is grown in Tamil Nadu.Andhra Pradesh and Karnataka are two states in India.

Commercially, it has been on the rise in Gujarat and Jodhpur.



Figno:5.Plant of Cassia AngustifoliaVahl.

AYURVEDIC PHARMACODYNAMICS

Rasa:Katu,Tikta(Bitter),Madhura

Laghu, Rooksha are the gunas.

Ushna: Virya, Virya, Virya, Virya, Viry (Hot)

Katu, Vipaka, Vipaka, Vipaka, Vipaka,

Sukha Virechaka is a Prabhava.

Pitta shodhaka, Vata anulomaka: Dosha karma

Plant parts used: dried leaves, pod, and root

Senna's primary ingredients are glycosides, which are a type of sugar. include:

Glycosides of Anthraquinone: It comprises two active crystalline glycosides, namely

Sennoside A&B are two types of sennosides. Sennidin A is dextrorotatory, while Sennidin B has no rotation. mesoform, Resulting from intramolecular compensation.

It also includes Sennosides C&D are hetero-dianthrones with the aglycones rhein and aloe emodin, respectively.

Naphthalene Glycosides: It contains tinnevellin glycoside, a naphthalene glycoside (0.3 percent), adverbial adverbial adverbial ad

Senna includes yellow flavonol, which is a flavonoid family member. isohamnetin, keampferol (3,4,5,7-trihydroxyflavone), keampferol (3,4,5,7-

trihydroxyflavone), keampferol (3,4,5,7-trihydroxyflavone), kesitosterol, calciumoxalate, mucilage, resin, saponins, and polysaccharide hydrocolloids are examples of polysaccharide hydrocolloids. also on the scene

Senna's main therapeutic applications are as follows:-

Senna's dried leaves are used as a purgative. Virechana was advised by Ayurveda in cases of hepatomegaly and splenomegaly. Using dried leaf or pod of Jaundice to relieve excessive Pitta from the body.

Senna is a type of plant.

> Irritable bowel syndrome, haemorrhoids, and weight loss are all treated with it.

Senna leaves, when dried, promote Pitta production in the liver.

The Senna leaf is a blood purifier.

This herb's anthraquinone can suppress a wide range of bacteria including dermatomyces, among other things.

Triphala and Senna Churna Preparation Methods

The raw materials for this composition were obtained from the market and authenticated by D.B. Science College in Gondia's Botanical Department.

The verification is carried out using powdered medication microscopic features.

Triphala and Senna Churna were made in a laboratory using an Ayurvedic procedure.

Formulary. The entire component was sieved at 80# and then combined in equal parts.

Using a spatula, mix the Churna into a homogeneous consistency. The laboratory preparation was given the name as well as LP (Lab Prepared).

Triphala & Senna Churna Evaluation

Organoleptic evaluation: Organoleptic evaluation is the process of evaluating a formulation based on its appearance, colour, odour, taste, and other characteristics. The formulations' organoleptic characteristics were investigated. These, however, because characteristics are subjectively assessed, substitutes or adulterants may appear to be quite similar to the original article. It's common to need to back up your conclusions with microscopy and physicochemical analyses. Lignified tissues must be validated by staining with different dyes on a microscopic level. reagents for staining All of the powders were boiled and put on slides with chloral hydrate/glycerin.

to examine with a compound microscope (10x&40x). First, a few drops of stain were applied to all powders. lignified cells after 3 to 4 minutes of a 1:1 mixture of chloroglucinol and conc. HCl Cells of the parenchyma, fibre, cork cell, stone cell, and oleo resins, among other things, were discovered.

CONCLUSION

Constipation is the infrequent bowel movements in common language its hardening of stools.

Triphalachurna is found useful in treating constipation. The activity of the formulation was examined using Antimicrobial assay. Triphala and Senna have significant antibacterial activity. From the designed formulation the most effective formulation was chosen and comparatively studied with the marketed

formulation. On the basis of the comparison between the marketed sample and the lab-made churna, satisfactory results were obtained. Various standardisation characteristics, such as physicochemical standards like total ash, acid in soluble ash, and water soluble extractive, were investigated in the current study. After examining the values, loss on drying, flow qualities, and safety evaluation, it may be concluded that the When compared to commercially available Triphala& Senna churna, the developed Triphala& Senna churna has all of the positive characteristics. It was discovered to be safe, effective, and cost-efficient.

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