



A REVIEW ON: RECENT TRENDS IN HERBAL MEDICINE

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Abstract

Herbal medicine having significant chemical constituents that having tendency toward treat the disease conditions. Mainly when there is no Allopathic drug Herbal drugs are used. Herbal medicine is becoming ever more popular in today's condition as people seek out natural remedies. About 70% population of India rely on traditional herbal medicine. Herbal medicine mainly use to maintain health and to treat various diseases condition from several decades. To compete with growing pharmaceutical market there is importance of use Herbal product to treat infections. Herbal medicine have also use as dietary supplement for prevention disease and alternative medicine. There are various variety of Herbal medicine readily available in market. Also the community choices the herbal product for safely and efficacy some of adverse effect are associated with herbal medicine. Herbal medicine provides therapeutic effectiveness, ADR, DI, Standardization and Stability testing, Pharmacovigilance and Regulatory status of Herbal drug.

Keyword

Herbal, ADR, Interaction, Therapeutic effect, Standardization, Stability and Constituents.

Introduction

Herbal medicine(HM) is the fulcrum of complementary and alternative medicine which in recent times is increasingly gaining popularity all over the world. Herbal drug referred as plants materials or called herbalism in this use whole plant or part of plant to treat injuries or disease condition or maintain health and healing purpose. Herbal drugs are oldest form of health care known to mankind. There are various type of herbal preparation available in market to treat mild to severe cases of disease. Exceptionally in some countries herbal drug may also enclose by tradition, natural organic, inorganic active constituents which are not of plant source. An important driver in this upsurge in patronage and use include low cost the wide acceptance due to its status of being a natural product with the acclaim of low toxicity and effective in certain chronic disease condition. Flexibility in its accessibility, preparation and use. The aim of this article

is to provide an overview on herbal medicines their use, ADR and their interaction. Herbs are generally safe due to they obtain from Natural sources. The use of herbal drug in the world day to day increase due to higher the side effects and toxicity associated with Allopathic drug its lead to rapid increases in the number of herbal drug manufacturers. Herbal drugs shows varying types of pharmacological activity that include Antimicrobial, Alzheimer, Migraine, Asthma, Hepatoprotective, Anti HIV, Anti-inflammatory, Analgesic, Antispasmodic, Antianxiety, Antidepressant, Sedative, Antiageing, Antifertility, Antidiabetic. In that particularly certain drugs uses stop due to higher toxicity and certain drug modify by additional herb. Drugs mainly cultivate, collect and harvested in proper Environmental condition. Also the proper soil with maintenance of Ph is necessary for proper growth of plant to gives good quality herbal product. Also the proper soil with maintenance of Ph is necessary for proper growth of plant to gives good quality herbal product. Also there is certain kind of method to prepare the herbal formulation.

Therapeutic Uses of Herbal Drugs

Herbal medicines include herbs, herbal materials, herbal preparations, finished herbal product that contain as active ingredients parts of the plant or other plant material or combination mainly use for prevention and treatment of diseases .The herbal drug is correct way provides effectual and safe treatments of many ailments.

Herbal medicines remains a major component of the primary healthcare in many rural African and Asian communities. It also constitutes an integral part of culture of many societies of the world. Many herbs and herbal recopies have long traditional history uses and claims health benefits. Scientific research has shown that HM Contain complex chemical compound that are responsible for the pharmacological activity. Their are certain types of methods mainly use for herbal preparation like Percolation, Decoction, It depends on the nature of plant material. Also the herbal product available in various form like Tablet, Capsule, Powder, Decoction, Tincture, Creams, Shampoo and many more.

Some Pharmacological Actions of Herbal Drugs

An herb is a plant or plant part used for its scent, flavor, or therapeutic properties. Herbal medicines are one type of dietary supplement. They are sold as tablets, capsules, powders, teas, extracts, and fresh or dried plants. People use herbal medicines to try to maintain or improve their health. Many people believe that products labeled "natural" are always safe and good for them. This is not necessarily true. Herbal medicines do not have to go through the testing that drugs do. Some herbs, such as comfrey and ephedra, can cause serious harm. Some herbs can interact with prescription or over-the-counter medicines. If you are thinking about using an herbal medicine, first get information on it from reliable sources. Make sure to tell your health care provider about any herbal medicines you are taking.

Different Types of Pharmacological Actions of Some Herbal Drugs

Anti-inflammatory activity, Antidiabetic activity, Analgesic activity, Antifertility activity
 Anticancer activity, Antipsoriasis activity, Antiageing activity, Antidepressive activity
 Antivertigo Activity

Table.No.1.Herbal Drugs and Their Pharmacological Activity

Sr. No.	Name of Activity	Example of Herbal Drugs
1	Antimicrobial	Acacia,Nilotica,Justicia,Zelanica,Lanatana,Camara,asoca
2	Antispasmodic	Belladonna, Valeriana, Officinalis, Eschscholzia
3	Anti-anxiety	Ginseng, Chamomile, Lavender, Saffron
4	Anti-HIV	Hypoxis, Hemerocallidea, Allium sativum(Garlic)
5	Sedative	German Chamomile, Passion flower

Adverse Drug Reactions of Herbal Drugs

Drugs are not completely free of adverse drug reactions some adverse drug reactions of typically used herbs are as follows serious adverse drug reaction noted are as follows

Table.No.2.Herbal Drug and Their Adverse Reaction.

Sr. No.	Name of Herbal Drug	Adverse Reaction
1	Gingno biloba	Allergic skin reactions, Bleeding disorders, Constipation, Contact dermatitis, Diarrhea.
2	Hypericum Perforatum	Gastrointestinal disturbances, Allergic reactions, Fatigue, Dizziness, Photosensitivity, Confusion.
3	Ephedra	Palpitation, Excitation, Insomnia and Dysuria.
4	Piper methysticum	Dened eyes, dry skin, Yellowing hair skin nail.
5	Cassia Senna	Liver, kidney damage, Carcinoma.
6	Aloe-vera	Acute kidney failure, Cancer, abdominal cramps and Diarrhea.
7	Commifora mukul	Stomach upset, Loose stool, Belching and Hiccups.
8	Curcuma Longa	Acid reflux, Increases urinary oxalate, Risk of kidney stone
9	Panax ginseng	Trouble sleeping, Liver damage and Allergic severe reactions.

Herbal Drugs and Their Interactions

Patient with narrow therapeutic index like Cyclosporine, Digoxin, Phenytoin, Theophylline, and Warfarin should be dispirited from using herbal products. All these drugs have increased adverse effect or less effective or when used in combination with herbal drugs.

Table.No.3.Herbal Drug and Their Possible Drug Interactions.

Sr. No.	Herbal Medicine with Allopathic Drug	Possible Interactions
1	Ginko with Aspirin	Increases bleeding
2	Kava with Benzodiazepines	Synergism effect
3	Aloe-vera with anesthetic sevoflurane	Additive effect on Platelet aggregation function has been hypothesized
4	Saliva Miltiorrhiza with warfarin	Increases anticoagulant effect
5	Hypericum Perforatum with Verapamil	Decreased Verapamil blood concentration
6	Red yeast rice with cyclosporine	Rhabdomyolysis
7	Opuntia polyacantha with Gipizide and Metformin	Hypoglycemic effect
8	Camellia sinensis with Folic acid	Decreased folate blood concentration
9	Panax ginseng with Phenezine	Sleeplessness, Tremor and Headaches

Standardization of Herbal Drugs and Their Evaluation

Standardization is defined as text for guidance on the quality of herbal medicinal product means adjusting the herbal drug preparation to a defined content of constituents or group of substances with known therapeutic activity.

Standardization is the first step for the establishment of constituent Bio-activity quality assurance program for production and manufacturing.

Categories of Herbal product

1.Those containing constituents with known and experienced therapeutic activity that is responsible for clinical efficacy.2.Those containing chemically defined constituents possessing relevant pharmacological properties which are likely to contribute to clinical efficacy.3.Those in which no constituents have been identified as being responsible for the therapeutic activity.

Standardization of Crude Drug Material Includes the Following Steps

1-Stage of collection
2-Parts of collected part
3-Regional status
4-Botanical identity, Microscopically and Histological analysis.

Various Histological Parameter of Herbs

Table.No.3.Histological Parameter of Herbal Drugs.

1-Leaf constant	2-Trichomes	3-Stomata
4-Quantitative microscopy	5-Taxonomical identity	6-Foreign matter
7-Organoleptic evaluation	8-Ash value and extractive values	9-Moisture content determination
10-Chromatographic and spectroscopic evaluation	11-Heavy metal determination	12-Pesticide determination
13-Microbial contamination	14-Radioactive contamination	----

Stability Testing of Herbal Drugs

Stability testing of herbal drugs is a challenging task because the herb or herbal product is regarded as the active matter. Regardless of whether constituents with defined therapeutic activity are known. The purpose of stability testing is to provide proof on how the quality of herbal products varies with time under influence of environmental factor such as temperature, light, oxygen, moisture, stability testing is necessary to ensure that the product is of satisfactory quality throughout its entire storage period. The stability parameters for the herbal formulations which include physical, chemical and microbiological parameters are as follows.

1. Physical Parameters

It include color, odor, appearance, clarity, viscosity, moisture content, Ph, Disintegration time, friability, hardness, Flowability, Flocculation, sedimentation, setting rate ash value.

2. Chemical Parameter

It includes limit tests, chemical tests, chemical assays etc.

3. Chromatographic Analysis

It includes TLC, HPLC, HPTLC, GC, UV, GC-MS and Fluorimetry.

4. Microbiological Parameter

It includes total viable content, total mold count, total enterobacterial count.

Pharmacovigilance of Herbal Drugs

Pharmacovigilance is the science and activities relating to the detection assessment, understanding and prevention of adverse effects of drugs or any other possible drug related problem. It includes herbal traditional and complementary medicines, blood products, biological, medical devices and vaccine. The major purpose of Pharmacovigilance is to protect patients from unnecessary harm by identifying previously unrecognized drug hazards, elucidating predisposing factors and quantifying risk in relation to benefit. The purpose of Pharmacovigilance is to detect, assess and understand to prevent the adverse effects or any other possible drug related problems, related to herbal, traditionally and complementary medicines.

Result and Discussion

We review the different research as well as review papers from that we found that herbal drugs mainly useful for treat milder to severe disease conditions also shows different pharmacological actions on human body. Also if we give herbal drug with allopathic preparations it produces the interaction with that and produces side effect on human body. Also we studied about different histological parameter of herbal drugs. So the precaution must be taken when we take the herbal drug with allopathic drug or consult your physician for this therapy. Also in market various herbal drugs are present that preparations should check for their evaluation parameter. Also some herbal drugs produces the adverse drug reaction on human health. So for curing any disease condition consult or take the decision for any kind of therapy for treatment of disease.

Conclusion

Medicinal plant as important source of therapeutic aids has a major role in health care system all over the world not only to treat the disease condition but also maintain the health of community. It is clear that herbal industry can make great strides in the world. There is large demand of herbal product in world due this current covid-19 condition to treat the viral infections and also it is effective to decrease the severity of viruses. For the safe use of herbal drug there is necessity to standardize and evaluate the herbal drug to give therapeutic effect with less toxic effect produce on body. A major factor impeding the development of the medicinal plant based industries in developing country has been lack of information on social and economic benefits that could be derived from the industrial utilization of medicinal plants. In future

research is required to develop the new herbal formulation for potential Pharmacovigilance response to treat mild to severe infections or diseases by available formulation and also herbs provides various nutrition to maintain the health of human being survive.

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