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RETURN TO NATURE FOR EFFICACIOUS AND SAFER MEDICINAL PROSPECTS: A REVIEW

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ABSTRACT

Traditional medicine also known as indigenous or folk medicine comprises medical knowledge systems that developed over generations within various societies before the era of modern medicine. We have gone through literature review published in online journals and related websites, then after study of literatures we found that the herbal industry shares about US $100 billion with good growth potential. The World Bank report trade in medicinal plants, botanical drugs products and raw materials is growing at annual growth rate of about 15% (WHO). Within the European community botanical medicine represents an import share of the pharmaceutical market. Natural products compounds discovered from medicinal plants (and their analogues thereof) have provided numerous clinically useful drugs in the treatment of chronic and or acute disease and still remain as an essential component in the search for new medicines. So, these traditionally used plants can be explored effectively in order to find new chemical entity for treatment of chronic disease. Hence the small but having greater future perspectives review was performed systematically.

KEYWORDS: Folk medicines, chronic disease, indigenous medicines.

1. INTRODUCTION

1.1 History of Herbal Medicine

Plants had been used for medicinal purposes long before recorded history. Ancient Chinese and Egyptian papyrus writings describe medicinal uses for plants as early as 3,000 BC. Indigenous cultures (such as African and Native American) used herbs in their healing rituals, while others developed traditional medical systems (such as Siddha, Ayurveda, Unani and

TCM) in which herbal therapies were used.[1] The consumption of plant-based medicines and other botanicals in the West has increased manifold in recent years. About two centuries ago, our medicinal practices were largely dominated by plant-based medicines. However, the medicinal use of herbs went into a rapid decline in the West when more predictable synthetic drugs were made commonly available. In contrast, many developing nations continued to benefit from the rich knowledge of medical herbalism. For example, Siddha & Ayurveda medicines in India, Kampo Medicine in Japan, traditional Chinese medicine (TCM), and Unani medicine in the Middle East and South Asia are still used by a large majority of people.[2]

1.2 What is traditional medicine?

Traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being. Countries in Africa, Asia and Latin America use traditional medicine (TM) to help meet some of their primary health care needs. In Africa, up to 80 per cent of the population uses traditional medicine for primary health care. In industrialized countries, adaptations of traditional medicine are termed “Complementary” or “Alternative” (CAM).

Recently there has been a shift in universal trend from synthetic to herbal medicine, which we can say ‘Return to Nature’. Medicinal plants have been known for millennia and are highly esteemed all over the world as a rich source of therapeutic agents for the prevention of diseases and ailments. Nature has bestowed our country with an enormous wealth of medicinal plants; Therefore India has often been referred to as the Medicinal Garden of the world. Countries with ancient civilizations such as China, India, South America, Egypt, etc. are still using several plant remedies for various conditions. In this regard India has a unique position in the world, where a number of recognized indigenous systems of medicine viz., Ayurveda, Siddha, Unani, Homeopathy, Yoga and Naturopathy are being utilized for the health care of people. No doubts that the herbal drugs are popular among rural and urban community of India. The one reason for the popularity and acceptability is belief that all natural products are safe. The demand for plant based medicines, health products, pharmaceuticals, food supplement, cosmetics etc are increasing in both developing and

developed countries, due to the growing recognition that the natural products are non-toxic, have less side effects and easily available at affordable prices.[3]

1.3 Why People Use Herbal Medicine

The earliest evidence of human's use of plant for healing dates back to the Neanderthal period.[4] Herbal medicinal is now being used by an increasing number of patients who typically do not report to their clinicians concomitant use.[5] There are multiple reasons for patients turning to herbal therapies. Often cited is a "sense of control, a mental comfort from taking action," which helps explain why many people taking herbs have diseases that are chronic or incurable viz. diabetes, cancer, arthritis or AIDS. In such situations, they often believe that conventional medicine has failed them. When patients use home remedies for acute, often self-limiting conditions, such as cold, sore throat, or bee sting, it is often because professional care is not immediately available, too inconvenient, costly or time-consuming.[4] In rural areas, there are additional cultural factors that encourage the use of botanicals, such as the environment and culture, a "man earth relationship." People believe that where an area gives rise to a particular disease, it will also support plants that can be used to cure it.[4] In India vast sections of the rural population have no access to modern medicine.[6] Hundred of primary health centers which are intended to serve rural areas, lack staffs, diagnostic facilities, and adequate supplies of drugs. The rural population is heavily dependent on traditional medical systems.[6] Natural plant products are perceived to be healthier than manufactured medicine.[7] Additional, report of adverse effect of conventional medications are found in the lay press at a much higher rate than reports of herbal toxicities, in part because mechanisms to track adverse effect exist for conventional medicines whereas such data for self treatment is harder to ascertain. Even physicians often dismiss herb as harmless placebos.[4]

1.4 Increasing use and popularity

TM has maintained its popularity in all regions of the developing world and its use is rapidly spreading in industrialized countries. In China, traditional herbal preparations account for 30-50 per cent of the total medicinal consumption.

In Ghana, Mali, Nigeria and Zambia, the first line of treatment for 60 per cent of children with high fever resulting from malaria is the use of herbal medicines at home. WHO estimates that in several African countries traditional birth attendants assist in the majority of births. In Europe, North America and other industrialized regions, over 50 per cent of the

population have used complementary or alternative medicine at least once. In San Francisco, London and South Africa, 75 per cent of people living with HIV/AIDS use TM/CAM.

70 per cent of the population in Canada has used complementary medicine at least once. The global market for herbal medicines currently stands at over US$ 60 billion annually and it is growing steadily.

2. **Difference of Herbal and Conventional Drugs** Although superficially similar, herbal medicine and conventional pharmacotherapy have three important differences:

Use of Whole Plants- Herbalists generally use unpurified plant extracts containing several different constituents. It is claimed that these can work together synergistically so that the effect of the whole herb is greater than the summed effects of its components. It is also claimed that toxicity is reduced when whole herbs are used instead of isolated active ingredients ("buffering"). Although two samples of a particular herbal drug may contain constituent compounds in different proportions, practitioners claim that this does not generally cause clinical problems. There is some experimental evidence for synergy and buffering in certain whole plant preparations, but how far this is applicable to all herbal products is not known.[8]

Herb Combining- Often several different herbs are used together. Practitioners say that the principles of synergy and buffering apply to combinations of plants and claim that combining herbs improves efficacy and reduces adverse effect. This contrasts with conventional practice, where polypharmacy is generally avoided whenever possible.[8]

Diagnosis- Herbal practitioners use different diagnostic principles from conventional practitioners. For example, when treating arthritis, they might observe, "under functioning of a patient's symptoms of elimination" and decide that the arthritis results from "an accumulation of metabolic waste products". A diuretic, cholerectic or laxative combination of herbs might then be prescribed alongside herbs with anti-inflammatory properties.[8]

3. Trends in herbal medicine use

Worldwide it is estimated that 80% of the population uses herbs; in the developing world rates could be as high as 95%.[9] The U.S. continues to see an increase in the use of herbs.[10] It is possible that certain methodologies may underestimate rates of use. In most studies, disclosure rates of herb use to providers are very low (a major concern).

4. Marketing of Herbal Remidies

4.1 Market value of herbal medicines

The market for ayurvedic medicines is estimated to be expanding at 20% annually. In other developing countries too, plants are the main source of medicine. Two of the largest users of medicinal plants are China and India. Traditional Chinese Medicine uses over 5000 plant species; India uses about 7000.

4.2 Indian Herbal Trade in World Scenario

The utilization of herbal drugs is on the flow and the market is growing step by step.[11] The annual turnover of the Indian herbal medicinal industry is about Rs. 2,300 crore as against the pharmaceutical industry's turnover of Rs. 14,500 crores with a growth rate of 15 percent.[12] The export of medicinal plants and herbs from India has been quite substantial in the last few years. India is the second largest producer of castor seeds in the world, producing about 1,25,000 tonnes per annum. The major pharmaceuticals exported from India in the recent years are isabgol, opium alkaloids, senna derivatives, vinca extract, cinchona alkaloids, ipecac root alkaloids, solasodine, Diosgenine/16DPA, Menthol, gudmar herb, Mehdi leaves, papian, rauwolfia guar gum, Jasmine oil, agar wood oil, sandal wood oil, etc.[13] The turnover of herbal medicines in India as over-the-counter products, ethical and classical formulations and home remedies of traditional systems of medicine is about $ one billion and export of herbal crude extract is about $ 80 million.[14]

4.3 Global Herbal Market

It is extremely difficult to calculate sales data regarding the use of herbs worldwide; these calculations are likely underestimated. This is due in part to the varied ways in which herbs are used (e.g. food products, energy drinks, multivitamins, raw form). The World Health Organization (WHO) estimates that the global market is approximately US $83 billion annually.[15] In some countries, marketing and sales of some herbs is driven primarily by profits. However, in other countries, herbs can serve as a major way of treating certain conditions or diseases more cost effectively, especially if the herb can be grown locally or regionally.

4.4 World Wide Herbal Trade

The global market for herbal medicines currently stands at over $60 billion annually. The sale of herbal medicines is expected to get higher at 6.4% an average annual growth rate.[16] Due to the contribution of numerous significant factors, the market of herbal medicines has grown

at an expressive rate worldwide. Some of them are: preference of consumers for natural therapies; concern regarding undesirable side effects of modern medicines and the belief that herbal drugs are free from side effects, since millions of people all over the world have been using herbal medicines for thousands of years; great interest in alternative medicines; preference of populations for preventive medicine due to increasing population age; the belief that herbal medicines might be of effective benefit in the treatment of certain diseases where conventional therapies and medicines have proven to be inadequate; tendency towards self-medication; improvement in quality, proof of efficacy and safety of herbal medicines and high cost of synthetic medicines.

5. Development in Herbal Medicine Industry With Reference To Trade

There is great demand for herbal medicine in the developed as well as developing countries like India, because of their wide biological activities, higher safety of margin than the synthetic drugs and lesser costs.[17] Medicinal plants play a great role in food supplements for care as well as in personal care of the mankind alongside the therapeutically active substances, thus medicinal plant based industry is a promising sector and enormous economic growth potential. Nutraceuticals (Health Food) are in great demand in the developed world particularly USA and Japan. Nutraceutical market in USA alone is about $ 80-250 billion, with a similar market size in Europe and Japanese sales worth $ 1.5 billion.[18] Such huge markets have arisen because of the Dietary Supplement Health Education Act passed by USA in 1994, which permits unprecedented claims to be made about food or the dietary supplements ability about health benefits including prevention and treatment of diseases. This act has motivated pharma to include not only compounds isolated from fauna and flora but also herbal medicines as Nutraceuticals, which is unfortunate. The Indian herbal pharma companies also see this as a good opportunity and are marketing such products.[19] However, the importance of medicinal plants in the national economy and their potential for the rapid growth of herbal products, perfumery and allied industry in India has been emphasized from time to time.[20] New trends are emerging in the standardization of herbal raw materials whereby it is carried out to reflect the total content of phytoconstituents like polyphenols, which can be correlated with biological activity. The major traditional sector pharmas, namely Himalaya, Zandu, Dabur, Hamdard, Maharishi, etc, are Standardizing their herbal Formulations by Chromatography techniques like TLC/ HPTLC finger printing, etc.

6. Herbal Medicine In The Treatment Of Chronic Disease

Herbal medicines have been widely utilized as effective remedies for the prevention and treatment of multiple health conditions for centuries by almost every known culture. The first documented records of herbal medicine use date back 5,000 years[21] in China. Similarly, India's Ayurvedic medicine tradition is thought to be more than 5,000 years old and herbal medicines remain an essential component of its practice[22] Today, the populations of certain countries still depend on herbal medicines to address their healthcare needs. In the U.S. the use of herbal medicines continues to grow since Eisenberg et al. conducted the first national study of complementary and alternative medicine use.

Additionally, as a general rule, older adult populations are more likely to use both conventional drug therapy and herbal medicines. This population is also more likely to have a higher incidence of chronic disease, which more often than not requires the use of increasingly complex conventional drug therapy. As such, the potential for herb-disease and herb-drug interactions increases with older adult populations. At present, there is a dearth of research evaluating the use of herbal medicines, especially clinical trials. This, together with the ongoing development of new conventional drug therapies, further compounds the number of unknown outcomes when using elements of these two treatment approaches together. In many countries, including the U.S., herbal medicines are not regulated as extensively as conventional drug therapy. Also, globalization has greatly increased accessibility of herbal medicines from all parts of the world to any single consumer. Clearly there is a great need for coordinated efforts to conduct the necessary clinical trials to study the efficacy and safety of herbal medicines, both alone and in conjunction with conventional drug therapies.

6.1 Present Status of Herbal Medicine

The wide spread use of herbal medicine is not restricted to developing countries, as it has been estimated that 70% of all medical doctors in France and German regularly prescribe herbal medicine[23] The number of patients seeking herbal approaches for therapy is also growing exponentially.[24] With the US Food & Drug Administration (FDA) relaxing guidelines for the sale of herbal supplement.[25] The market is booming with herbal products.[26] As per the available records, the herbal medicine market in 1991 in the countries of the European Union was about $ 6 billion (may be over $20 billion now), with Germany account for $3 billion, France $ 1.6 billion and Italy $ 0.6 billion. In 1996, the US herbal medicine market was about $ 4 billion, which have doubled by now. The Indian herbal drug

market is about $ one billion and the export of herbal crude extract is about $80 million.[27] In the last few decades, a curious thing has happened to botanical medicine. Instead of being killed off by medical science and pharmaceutical chemistry, it has made come back. Herbal medicine has benefited from the objective analysis of the medical science, while fanciful and emotional claims for herbal cures have been thrown out, herbal treatments and plant medicine that works have been acknowledge. And herbal medicine has been found to have some impressive credentials. Developed empirically by trial and error, many herbal treatments were nevertheless remarkably effective.[28] In a recent survey.[29] Estimated that 39% of all 520 new approved drugs in 1983-1994 were natural products or derived from natural products and 60-80% of antibacterial and anticancer drugs were derived from natural products.[30] The penicillin that replaced mercury in the treatment of syphilis and put an end to so many of the deadly epidemics comes from plant mold. Belladona still provides the chemical used in opthalmological preparations and in antiseptics used to treat gastrointestinal disorders. *Rauvolfia serpentina* (The Indian snake root) which has active ingredient, reserpine, was the basic constituent of a variety of tranquilizer first used in the 1950's to treat certain types of emotional and mental problems. Though reserpine is seldom used today for this purpose, its discovery was a breakthrough in the treatment of mental illness. It is also the principal ingredient in a number of modern pharmaceutical preparations for treating hypertension.

6.2 Status of Herbal Medicine in India

India has a rich tradition of herbal medicine as evident from Ayurveda, which could not have flourished for two thousand years without any scientific basis. Ayurveda which literally means knowledge (Veda) of life (Ayur) had its beginning in Atharvaveda. Charak Samhita and Sushruta Samhita are the two most famous treatises of Ayurveda several other were compiled over the centuries such as Bela Samhita, Kashyap Samhita, Agnivesh Tantra, Vagbhata's Ashtang hridaya (600), Madhava Nidan (700 AD).[31] Vegetable products dominated *Indian Meteria Medica* which made extensive use of bark, leaves, flower, fruit, root, tubers and juices. The theory of *rasa, vipaka, virya* and *prabhava* formed the basis of Ayurveda pharmacology, which made no clear distinction between diet and drug, as both were vital component of treatment. Charak, Sushruta and Vagbhata described 700 herbal drugs with their properties and clinical effects. Based on clinical effects 50 categories of drug have been decribed – such as appetizers, digestive stimulant, laxatives, anti-diarrhea, anti-haemorrhoid, anti-emetic, anti-pyretic, anti-inflammatory, anti-pruritic, anti-asthmatic,

antiepileptic, anti-helminthic, haemoptietic, haemostatic, analgesis, sedative, promoter of life (Rasyana), promoter of strength, complexion, voice, semen and sperm, breast milk secretion, fracture and wound healing, destroyer of kidney stones etc.[31] Use of the herbal medicine in jaundice, presumably viral hepatitis, has been known in India science the Vedic times. About 170 phyto-constituents isolated from 110 plants belonging to 55 families have been reported so far to possess liver protective activities. It is estimated that about 6000 commercial herbal formulations are sold world over as hepatoproctective drugs. Of them about 40 patent polyherbal formulations representing a variety of combinations of 93 Indian herbs from 44 families are available in the Indian market. However, the following four herbal medicines have been found to be most promising in the treatment of viral hepatitis, (i.) Silymarin obtained from the seeds of Silibum marianum, (ii.) Extracts of *Picrorrhiza kurroa*, popularly known 'Kutaki' (iii.) Extract of many plant of the genus, Phyllanthus, have been used as hepatoprotective, of them, the most widely used ones have been *Phyllanthus niruri* and *Phyllanthus amarus*, (iv.) Glycyrrhizin prepration have been used in the past for peptic ulcer as well as liver diseases with mixed results. However, a new Japanese preparation from glycyrrhizin, stronger neomenophagen C (SNMC), appear to be very promising in the treatment of virus related chronic liver diseases. Liv 52, an extract of several plants prepared for Ayurvedic medicine was reported to improve serum biochemistry values in rats with toxic liver damage, and uncontrolled observations in patients with liver disease seemingly gave similar result.[32] Double-blinded and well-designed clinical trials have also been conducted with Argyowardhani in viral hepatitis, *Mucuna pruriens* in Parkinson's disease, *Phyllanthus amarus* in hepatitis and *Tinospora cordifolia* in obstructive jaundice.[33]

6.3 Explanatory Models of Illness and Chronic Disease Management

Sociocultural factors influence the explanatory models that patients use to understand and respond to illness. An explanatory model (EM) is a culturally-specific understanding of a particular disease or health condition and includes beliefs about the etiology, prevention and treatment of illness.[34] Explanatory models may refer to a biomedically-recognized disease such as asthma, or they may describe folk illnesses such as empacho, a highland Mexican folk illness characterized by diarrhea and caused, according to this model, by an obstruction in the digestive system.[35] Traditional cultural and biomedical health beliefs may also be combined in an explanatory model, especially among immigrant groups.[36] For example, in cultures with humoral (hot/cold) theories of disease, asthma often is seen as a ''cold'' type of illness[37] with treatments involving the application of ''hot'' elements to counteract the

‘‘cold’’ and restore balance. Ethnographic and other studies with immigrant groups have shown that these health beliefs and practices evolve over time as populations encounter new information, experiences, and changes in the social context.[38] Many societies have explanatory models for acute illness conditions that include an array of specific responses and treatments, yet lack an understanding of the idea of chronic disease.[39] As a consequence of this lack, the Hmong, for example, ‘‘in general are not as willing to treat asymptomatic chronic diseases such as hypertension, diabetes, or hyperlipidemia as they are to treat acute, symptomatic illness’’.[181] Some argue that the concept of chronic disease is a product of ongoing contact with biomedical systems of health care.[40] Even in the U.S., according to Becker et al.[40], ‘‘remission of symptoms may be considered to be a cure by people in some ethnic groups.’’ In Becker et al.’s[41] mixed method (qualitative and quantitative) study, Latinos with chronic illnesses in California perceived ‘‘each exacerbation of symptoms as a separate illness that was unrelated to previous episodes. Diagnosis and treatment was seen as a discrete entity with each illness event, particularly for illnesses that had a variety of symptoms.’’ The authors attribute this to a lack of information about the nature and meaning of chronic disease. In such cases, physicians seeking to educate their patients about hypertension, for example, must be sure that the patient first understands the ideas of chronicity and asymptomatic illness.

7. Herbal medicine research

There are limited clinical trials to determine efficacy and safety of traditional herbal medicines. This lack of research does not impede most from using them, given that these remedies are often grounded in long standing cultural traditions. When trials are conducted, the Western-defined disease classification may not be appropriate to measure efficacy and safety in relation to the use of herbs in other countries. Tylburt and Kaptchuk recently published an ethical analysis of global herbal medicine research. They pose multiple scientific questions that shed light on the difficulties of conducting research with herbal medicines worldwide. Finding appropriate ways to conduct this type of research is an ongoing challenge.

8. Future prospects of herbal medicine market

It is estimated that nearly three fourths of the herbal drugs used worldwide were discovered following leads from local medicine. According to WHO about 25% of modern medicines are descended from plants first used traditionally. Many others are synthetic analogues built on

prototype compounds isolated from plants. Almost, 70% modern medicines in India are derived from natural products. The basic uses of plants in medicine will continue in the future, as a source of therapeutic agents, and as raw material base for the extraction of semi-synthetic chemical compounds such as cosmetics, perfumes and food industries. Popularity of healthcare plant-derived products has been traced to their increasing acceptance and use in the cosmetic industry as well as to increasing public costs in the daily maintenance of personal health and well being. In the dual role as a source of healthcare and income, medicinal plants make an important contribution to the larger development process. Though the efficacy of herbal requires development of quality consciousness in respect of the evaluation related evidences, supplying the demand for botanicals and herbals is a booming business.

Recently even developed countries, are using medicinal systems that involve the use of herbal drugs and remedies. Undoubtedly the demand for plant derived products has increased worldwide. The demand is estimated to grow in the years to come fuelled by the growth of sales of herbal supplements and remedies. This means that scientists, doctors and pharmaceutical companies will be looking at countries like China, India, etc. for their requirements, as they have the most number of medicinal plant species and are the top exporters of medicinal plants.

Future investigation of tribal medicines

Tribal healers in most of the countries, where ethno medical treatment is frequently used to treat cut wounds, skin infection, swelling, aging, mental illness, cancer, asthma, diabetes, jaundice, scabies, eczema, venereal diseases, snakebite and gastric ulcer, provide instructions to local people as how to prepare medicine from herbal. They keep no records and the information is mainly passed on verbally from generation to gene. World Health Organization (WHO) has shown great interest in documenting the use of medicinal plants used by tribal from different parts of the world. Many developing countries have intensified their efforts in documenting the ethno medical data on medicinal plants. Research to find out scientific evidence for claims by tribal healers on Indian herbs has been intensified. Once these local ethno medical preparations are scientifically evaluated and disseminated properly, people will be better informed regarding efficacious drug treatment and improved health status.

9. Role of World Health Organization (WHO) in phytomedicine

In 1991 WHO developed guidelines for the assessment of herbal medicine, and the 6th International Conference of Drug Regulatory Authorities held at Ottawa in the same year ratified the same. The salient features of WHO guidelines are: 1). **Quality assessment:** Crude plant materials or extract plant preparation and finished product. 2). **Stability:** Shelf life. 3). **Safety assessment:** Documentation of safety based on experience and toxicological studies. 4). **Assessment of efficacy:** Documented evidence of traditional use and activity determination (Animals and human).

9.1 The Challenges in Herbal Medicines

A key challenge is to objectively assess conflicting toxicological, epidemiological, and other data and the verification of herbal materials used. The following key issues remain.

- Management within ranges of risk
- Communication of uncertainty
- Pharmacological, toxicological, and clinical documentation
- Pharmacovigilance
- Understanding why addition of harmful additives works
- evaluating “drug” interactions
- Constraints with clinical trials and people available
- Standardization
- Safety, and efficacy assessment

The evaluation of new herbal products consists of six steps,

1. Characteristics of new substances,
2. History and pattern of use,
3. Any adverse reaction,
4. Biological action,
5. Toxicity and carcinogenicity, and
6. Clinical trial data.

9.2 WHO efforts in promoting safe, effective and affordable traditional medicine

The World Health Organization launched its first ever comprehensive traditional medicine strategy in 2002. The strategy is designed to assist countries:

-Develop national policies on the evaluation and regulation of TM/CAM practices;

-Create a stronger evidence based on the safety, efficacy and quality of the TM/CAM products and practices;

- Ensure availability and affordability of TM/CAM, including essential herbal medicines;
- Promote therapeutically sound use of TM/CAM by providers and consumers; and
- Document traditional medicines and remedies.

9.3 Potential negative outcomes

While many benefits can be derived from the use of herbs, potential negative outcomes cannot be ignored. Saper et al reported that 20% of Ayurvedic medicines purchased via the Internet contained detectable levels of lead, mercury, and arsenic. Many herbal product adulterations have been detected primarily containing drugs like sildenafil (Viagra®), lovastatin (Mevacor®, and others), estrogen, alprazolam (Xanax®, and others), indomethacin (Indocin®, and others), and warfarin (Coumadin®, and others). There is an apparent trend of adding drugs or analogues to herbs to make them more effective, especially for weight loss and enhanced sexual function. Herbs that have caused major adverse events include creosote bush (hepatotoxicity), ephedra or Mau Huang (cardiovascular complications and hepatotoxicity), and kava (hepatotoxicity). Using the proper parts of the plant and the appropriate processes for obtaining the ingredients could prevent toxicity, as seen in kava-induced toxicity. Herbs that may alter bleeding are also of importance especially in patient populations with coagulopathies, on antiplatelet or anticoagulant drugs, or in surgical patients. We reported a case of a surgical patient with a prolonged unexplained bleeding after taking large quantities of an herbal tea that contained Mexican arnica. Keep in mind that many medications used today may cause similar adverse events if not monitored or used correctly.

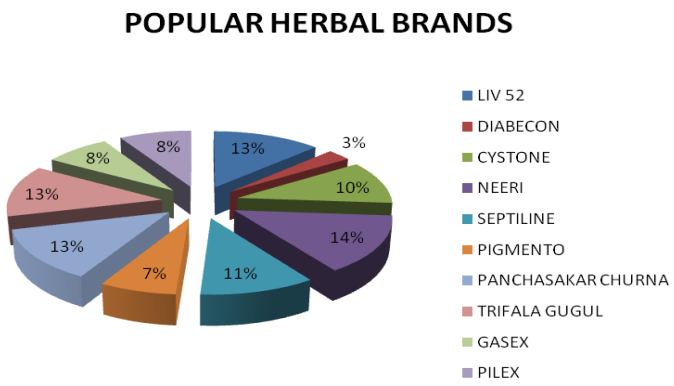

Fig. 1: Popular Herbal Brands Available in Market.

CONCLUSION

The main motive of this study is to highlight the role and importance of herbal medicine considering its efficacy and safety etc profile. Modern medicine is potent but having several side and adverse effects. In most of the life threatening diseases it works as a poison even, especially in case of chronic diseases.

From ancient time people are known to medicinal properties of plants, but lack of proper attention or may be because of commercial benefits it has been ignored and hence medicinal gifts with great therapeutic value given by nature has been overlooked. Now a days herbal medicines again getting attention because of life threatening side effects of some modern medicines and lesser side effect of herbal medicine.

Even WHO and other reputed pharmaceutical companies are emphasizing the research on herbal based and or herbal based modern medicines.

This paper will help researcher to provide an idea on importance of the herbal based drugs and also encourage them to explore herbal based modern medicine.

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