



## Review Article

# Recent Trends in Herbal Sudanese Drugs: A Review

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### ABSTRACT

In this paper we present the review on Herbal Sudanese Drugs used in the Sudan. We concluded that traditional medicines are still used by indigenous people in Sudan to treat a variety of illnesses and microbiological infections. The data presented in this article established the traditional applications of the most prominent Sudanese medicinal herbs while also summarizing modern studies on their phytochemistry and pharmacology

### Introduction

Traditional herbal medicines are naturally occurring, plant-derived drugs that have been utilized to treat illness in local or regional healing practices with minimal to no industrial processing. In global health issues, traditional herbal remedies are receiving a lot of attention. Traditional Chinese herbal therapy was a big part of the strategy for containing and treating severe acute respiratory syndrome in China. Traditional medicine has long been used to treat human problems, and it is primarily composed of ingredients taken from natural goods such as herbs, plants, and animals. Natural medicinal remedies are widely used in Sudan, Africa, and the rest of the world. For primary health care, around 80% of African communities rely on traditional medicine.

Traditional uses of 48 Sudanese medicinal herbs are described in this review. There are 26 families of plants in this collection. Fabaceae are the most prevalent family, followed by Combretaceae, Cappariaceae, and Capparaceae, Meliaceae, Asclepiadaceae, Anacardiaceae, and Malvaceae, with each family having one species. Medicines are made from many plant components such as the leaf, stem, root, fruit, seed, and bark, as well as the aerial section and whole plant. Leaf (25%) fruit (23%) and stem (17%) elements are the most popular.

### *Herbal Medicine's Benefits:*

Low/Minimum cost, potency and efficiency, increased tolerance, more protection, less side-effects, complete accessibility, recyclable

### *Disadvantages of Herbal Drugs:-*

Not able to cure rapid sickness and accidents, Risk with self dosing, Complexity in standardizations.

### *Pharmacological Actions of Herbal Drugs:-*

**Anti-inflammatory activity:-** Extracts of *Achillea millefolium*, *Artemisia vulgaris*, *Bauhinia tarapotensis*, *Curcuma longa*, *Forsythia suspense*, *Houttuynia cordata*, *Glycyrrhiza uralensis*, *Lonicera japonica*, *Ruta graveolens*, *Securidaca longipedunculata*, *Valeriana wallichii*,

### **Antidiabetic activity:-**

People have used herbal plants as home medicines for diabetes therapy from the beginning of time. *Abroma augusta*, *Acacia melanoxylon*, *Acacia modesta*, *Acacia nilotica*, *Aconitum ferox*, *Adhatoda vasika*, *Adiantum capillus*, *Adiantum incisum*, *Agrimonia eupatoria*, *Allium sativum*, *Aloe barbadensis*, *Althaea officinalis*, *Apium graveol*, *panax ginseng*, *Gymnema sylvestre* is a plant that has been used to treat a variety of ailments. *Plantago ovata*, *Inula helenium*, *Juniperus communis*, *Medicago sativa*, *Nigella sativa*, *Orthosiphon stamineus*, *Panax quinquefolius*, *Polygala senega*, *Plantago ovata*, *Punica granatum*, *Salvia officinalis*, *Scoparia dulcis*, *Tanacetum vulgare*, *Taraxacum officinale*, *Tecoma stan*

**Anticancer activity:** Medicinal plant items with anticancer potential are still being studied in order to produce medications to treat various human cancers. *Acalypha fruticosa*, *Alangium lamarki*, *Catharanthus roseus*, *Celastrus paniculatus*, *Embelia ribes*, *Ficus glomerata*, *Ficus racemosa*, *Ocimum*

basilicum, *Plumbago zeylanica*, *Terminalia chebula*, *Tylophora indica*, *Wrightia tinctoria* are some of the medicinal plants used in the treatment of cancer. *Buthus martensi*, *Colla cornu*, *Herba epimedii*, *Fructus lycii*, *Radix angelicae*, *Radix bupleuri*, *Rhizoma corydalis*, *Rhizoma curculiginis*, *Radix paeoniae*, *Radix glycyrrhizae*, *Scolopendra subspinipes*, *Squama manitis*, *Tuber curcumae* are the extracts used to treat breast *Emblica officinalis*, *Nigella sativa*, and *Terminalia beleric* are three herbs that are used to cure pancreatic cancer.

**\*Anti-aging activity:** Free radicals attack cell membranes in particular. The cell's ability to replicate itself is compromised when the nucleus is damaged. Defective cell replication leads to a weakened immune system, premature skin aging, and a variety of age-related diseases. On a cellular level, a variety of antioxidants neutralize free radicals and prevent oxidation. Pine bark extract, grape seed extract, and blue berries were found to be the most effective antioxidants in combating free radicals' antagonism.

#### # *Ocimum basilicum* L.- (*Lamiaceae*)

***Ocimum basilicum* L.** is a plant that comes from the *Ocimum basilicum* genus (*Lamiaceae*)

One of the primary *Lamiaceae* genera is *Ocimum basilicum*. It can be found growing in a variety of climates around the globe. *O. basilicum* grows wild in Sudan and is widely farmed in the north and central parts of the country. Traditional healers in Sudan's remote areas utilize *O. basilicum* as a demulcent and as an infusion to treat jaundice. The plant's essential oil is used in perfumery, the culinary industry, and dental and oral products as a flavoring agent. Antimicrobial, antimalarial, and antioxidant effects have been observed in *O. basilicum*. Essential oil components including eugenol, linalool, camphor, methyl chavicol, and methyl cinnamate are thought to be responsible for these medicinal properties.

#### *Calotropis procera* (Ait.) Ait. f.: (*Asclepiadaceae*)

*Calotropis procera* is traditionally used in Sudan to cure jaundice, thorn injuries, and as a mouth detergent in the form of an infusion, while the plant's paste is used to treat scorpion bites and rheumatic pain in the form of a paste. Antibacterial, antioxidant, antifungal, and anthelmintic properties have been demonstrated for *C. procera*. Saponins, tannins, alkaloids, and flavonoids are likely to play a role in the effects recorded.

#### # *Hibiscus sabdariffa* L.- (*Malvaceae*)

*H. sabdariffa* is a medicinal plant that all Sudanese communities are interested in. It has been utilized as a herbal remedy and in ethnomedicine as herbal drinks in both cold and hot beverages. Southern Sudan is the natural habitat of *H. sabdariffa*, however it is cultivated across Sudan. Hypertension, colds, fever, and antispasmodic and antibacterial agents are all treated using the plant's maceration and decoction. *H. sabdariffa* calyces are also used to make a drink called "Karkade," which is made by boiling the calyces with sugar. Antibacterial, antioxidant, antidiabetic, anticancer, antihypertensive, antipyretic, anti-inflammatory, and hepatoprotective properties of *H. sabdariffa* extracts have been established in pharmacological studies. The plant extract, on the other hand, did not stop *Candida albicans* from growing. The presence of phenolic acids, organic acids, and anthocyanins in various areas of the plant could be responsible for the intriguing biological effects.

#### # *Ziziphus spina-christi* L.- (*Rhamnaceae*)

The Sudanese-born *Z. spinachristi* is a tropical tree. The historical and religious significance of the plant are fascinating. It has been recorded by pilgrims visiting the Holy Land on multiple occasions and is mentioned in Muslim and Christian traditions. Muslims utilize boiled water extracts of *Z. spinachristi* leaves to clean a dead body before burial, implying that the leaves have antibacterial characteristics. Furthermore, ancient Egyptians utilized the herb for mummification. *Z. spinachristi* has been postulated as the source of the plant material referenced to in the Bible as "bramble" or "thorns," "thorns," and "crown of thorns." The Lote tree (Cedar) is mentioned three times in the Holy Quran, with *Z. spinachristi* being the most common identification. As a result, this species is highly respected throughout the Middle East, has long been utilized as a food, medicinal, and environmental protection plant, and is still in use today. In ethnomedicine, *Z. spinachristi* is used to cure a variety of ailments, including digestive issues, weakness, hepatic disorders, obesity, urinary problems, diabetes, skin infections, fever, diarrhea, and insomnia.

#### # *Mimosa pigra* L. is a plant that belongs to the family *Mimosaceae* (*Fabaceae*)

A woody shrub endemic to the American tropics, *Mimosa pigra* (giant sensitive plant) is a woody shrub. Aside from its native habitat, it is a very invasive and destructive species that has a negative impact on agriculture and conservation. In Australia, Africa, and Southeast Asia, it is particularly problematic. Sudan and its neighboring countries have all been exposed to it. [319] *M. pigra* is also used in traditional medicine in tropical Africa, Indonesia, Madagascar, and South America for heart problems, colds, diarrhea, toothaches, eye medication, and its antibacterial properties. The benefits of the plant's leaves for pulmonary hypertension were demonstrated by Rakotomalala et al. Phytochemistry components found in *M. pigra* include tryptophan, kaempferol, apigenin, acacetin, quercetin 3-rutinoside, quercetin 3, 7-dirhamnoside, kaempferol 3,7-dirhamnoside, luteolin 7-arabinoside, quercetin 7-methyl ether, and saponin.

#### *Ixora coccinea* L. is a plant that belongs to the genus *Ixora* (*Rubiaceae*)

The flowering plant *Ixora coccinea* is endemic to India and Sri Lanka. *I. coccinea* is used to treat diarrhea, fever, headaches, skin illnesses, eye problems, wounds, sores, and ulcers in traditional Sudanese and ayurvedic medicinal systems. *I. coccinea* has antioxidant, antibacterial, anticancer, analgesic, anti-inflammatory, antidiarrheal, hepatoprotective, cardioprotective, antimutagenic, wound healing, and anticancer properties, according to

recent studies. Peptides, triterpenoids, and fatty acids are all found in *I. coccinea*. In addition to the similar bioactive compounds described previously, we have recently reported various phenolics in the stem and leaves of *I. coccinea*, including chlorogenic acids, proanthocyanidins, flavonoids, and flavonoid glycosides.

#### # *Sonchus oleraceus* L. with *Ambrosia maritima* L. (Asteraceae)

Two versatile therapeutic plants, *Ambrosia maritima* and *Sonchus oleraceus*, are widely dispersed weeds in Sudan, Senegal, and surrounding countries. Across the African continent, these plants are widely used to cure a variety of ailments, including viral infections. *A. maritima* dried herb is used to treat hypertension, diabetes, bronchial asthma, spasms, frequent urination, urinary tract infections, and kidney stones in Sudan and other nations. This plant is also used as a molluscicidal component in the control of *Fasciola* and *Schistosoma* intermediate hosts. Furthermore, several authors have previously reported *A. maritima*'s antiviral and antifungal properties. Traditional healers, on the other hand, have employed the vegetative shoots of *S. oleraceus* to cure diabetes, diarrhea, pneumonia, and hepatitis. In addition, the herb is cholagogue, laxative, and emollient. *S. oleraceus* was also found to have anti-diabetic, antibacterial, anti-inflammatory, and antioxidant effects.

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#### Conclusions:-

We have shown in this review that traditional medicines are still used by indigenous people in Sudan to treat a variety of illnesses and microbiological infections. The data presented in this article established the traditional applications of the most prominent Sudanese medicinal herbs while also summarizing modern studies on their phytochemistry and pharmacology. The extracts and isolated chemicals have been discovered to have a variety of biological actions, including antibacterial, antidiabetic, anticancer, anti-inflammatory, and antioxidant properties. Despite growing interest in the phytochemistry and pharmacology of Sudanese medicinal plants, there are still many areas where current knowledge could be improved, such as systematic toxicity and safety evaluation, detailed quantitative data for bioactive compounds, and investigation of structure activity relationships of isolated and purified active compounds. Traditional medicine should be taken seriously in future research and projects aimed at producing lead compounds and/or biologically active chemicals from plant sources, according to the researchers.

#### Conflicts of interest:-

There are no conflicts of interest.

#### Reference:-

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- 3) International Journal of Drug Research and Technology Available online at <http://www.ijdr.com/> Review Article RECENT TRENDS IN HERBAL DRUGS: A REVIEW Bodhisattwa Maiti<sup>1</sup> \*, Nagori B.P.2 , Rambir Singh1 , Pragati Kumar1 and Nishant Upadhyay1 1Gyan Vihar School of Pharmacy, Suresh Gyan Vihar University, Jaipur, Rajasthan, India 2 L. M. College of Science and Technology (Pharmacy), Sector-A, Shastri Nagar, Jodhpur, India.