

*Full Length Research paper*

# Prevalence of crude drugs used in Arab folk medicine available in Makkah Al-Mukarramah Area

**Amal Abdulaziz Bajrai**

Obesity Centre, College of Medicine, King Saud University, P. O. Box 2925. Riyadh, Saudi Arabia.  
E-mail: abajrei@ksu.edu.sa, heat9098@yahoo.com. Tel: +966 14677338, +966 505505864. Fax: +966 1291444.

Accepted 21 June, 2010

**This article is based on the results of a preliminary ethno-botanical research survey conducted in Makkah Al-Mukarramah area. The main objective of this paper was to enlist the wealth of crude drugs (botanical medicinal materials) available in the Attar shops (herbal drug stores) along with their folkloric uses. A total of 71 species, belonging to 40 families and 69 genera were enlisted and their therapeutic uses were also described.**

**Key words:** Crude drugs, prevalence, survey, Makkah.

## INTRODUCTION

According to the World Health Organization (WHO), the use of herbal drugs throughout the world has increased tremendously (Pal and Shukla, 2003). The use of herbal drugs in the Kingdom of Saudi Arabia has its roots in ancient times. Many Arab physicians established medicine as a science using the healing properties of the different plant species. This knowledge has survived till date and an array of herb shops are found in the markets of the modern Saudi Arabia cities.

Makkah Al-Mukarramah is one of the oldest cities in the Arabian peninsula, situated on Latitude of 21°26' North and Longitude: 39°49' East. The city of Makkah is located in the Kingdom's Makkah province in historic Hejaz. With a population of 1.7 million, the city is located 73 km inland from Jeddah, in a narrow valley, and 277 m (910 ft.) above sea level. In general, the climate of Saudi Arabia is harsh with great temperature extremes, dry desert and scanty rainfall.

The healthcare facilities are remarkable and are available not only to its inhabitants but to the foreign workers residing in the Kingdom. However, the local population and the foreigners especially from South-East-Asia including those from the Indian sub-continent, still believe and utilize crude drugs for the treatment of their day to day and chronic diseases (Ghazanfar, 1994). The folk medicine practices are prevalent since ancient times in the Kingdom but it is yet to be recognized and acknowledged officially, as it is considered by people as a heritage and tradition of their ancestors (Kamal, 1975).

Although the folk medicine practitioners have a low educational level, nevertheless they possess an empirical experience in herbal medicine, based on tradition. Folk medicine for several reasons has become more visible as an alternative and/or supplement to conventional medical approach. The extent to which people are involved in alternative therapies, however, is not fully known in Saudi Arabia.

The aim of the present research was to record the crude drugs which are available and sold in Attar shops (herbal medicine shops/herbal drug stores) in and around Makkah (the Holy City) area. There are no such reports available in the literature regarding the current status of the availability of crude drugs in Makkah area. Therefore, the present investigation was undertaken and is being reported as a dissemination of information gathered. This study was mainly focused on collecting the names of the available crude drugs in different shops along with their uses in disease conditions by interviewing the owners of the shops; these herb sellers are called Tabeeb Sha'abi or Hakims.

## MATERIALS AND METHODS

The Makkah Al-Mukarramah area is unique and characterized by very dry and rocky mountains with harsh dry weather; hence there is no or very little vegetation present. The field work was conducted at varied time and locations in the city of Makkah. The names of the crude drugs and their medicinal and/or folkloric therapeutic uses

**Table 1.** Market samples of crude drugs available in attar shops of Makkah Al-Mukarramah.

Local name	Family and Scientific name	Parts used	Folkloric uses
Aftimoun	Convolvulaceae <i>Cuscuta reflexa</i>	Seed	Used as appetizer, carminative and anthelmintic
Ahlelaj	Combretaceae <i>Terminalia chebula</i>	Fruit	Used in dysentery and in skin diseases
Amlaj	Euphorbiaceae <i>Emblica officinalis</i> Gaertn.	Fruit	A cooling, nutritive, diuretic and laxative
Anzarout	Fabaceae <i>Astragalus sarcocola</i> Dymock	Gum	Laxative, used in joint pains
Aqarqarha	Asteraceae <i>Anacyclus pyrethrum</i> Dc.	Root	Used in rheumatism and to increase saliva
Asarun	Aristolochiaceae <i>Asarum europaeum</i> L.	Root	To induce vomiting and in burning micturation
Baboonaj	Asteraceae <i>Anthemis nobilis</i> L.	Flower	To calm and used as a carminative
Balelaj	Combretaceae <i>Terminalia belerica</i> Roxb.	Fruit	Laxative, hair tonic and used in liver ailments and in cough
Banafsha	Vaiolaceae <i>Viola odorata</i>	Flower	Used in fevers and chest diseases
Bazr katan	Linaceae <i>Linum usitatissimum</i> L.	Seed	Externally applied on swollen joints. Internally in burning urination
Behmen abyadh	Asteraceae <i>Centaurea behen</i> L.	Root	Used to increase sexual desire. Also used in jaundice and to remove kidney stones
Curcom	Zingiberaceae <i>Curcuma longa</i> L.	Rhizome	Carminative, stomachic. A paste is applied on contusions and sprain
Fawwa	Rubiaceae <i>Rubia cordifolia</i> L.	Root	To stop diarrhea and also used in fevers
Filfil taweel	Piperaceae <i>Piper longum</i> L.	Fruit	Fruit is carminative used in stomach disorders and in dyspepsia as well as in colds, coughs and headaches

Table 1. Continued.

Fofal	Palmae <i>Areca catechu</i> L.	Nut	Anthelmintic, useful in urinary disorders. Also used in veterinary medicine
Habbal-Malouk	Euphorbiaceae <i>Croton tiglium</i> L.	Seed	A drastic purgative, rubefacient and powerful irritant
Hail Habashi	Zingiberaceae <i>Aframomum melegueta</i> Rosc.	Seed	Carminative, used in hyperacidity and to increase appetite
Heil	Zingiberaceae <i>Elettaria cardamomum</i> Maton	seed	An aromatic, stimulant, stomachic and carminative
Henna	Lythraceae <i>Lawsonia inermis</i> L.	Leaf	Used in skin diseases and liver problems and for coloring agent. Also to reduce body heat
Hilteet	Apiaceae <i>Ferula asafoetida</i> Regel.	Gum-resin	Used in hysteria, epilepsy and as carminative and in scorpion-sting
Hommos	Fabaceae <i>Cicer arietinum</i> L.	Seed	Used in dyspepsia, constipation and to relieves flatulence
Hulba	Fabaceae <i>Trigonella foenum-graecum</i> L.	Fruit	The fruits are used in menstrual disorders, in diabetes and as an aphrodisiac
Irq-U-s-Soos	Fabaceae <i>Glycyrrhiza glabra</i> L.	Roots	Tonic, laxative, used in cough and sore throat and also in the treatment of genito-urinary diseases
Jadwar	Ranunculaceae <i>Delphinium denudatum</i> Wall.	Root	A stimulant and carminative. used in toothache
Jawzatalteeb	Myristicaceae <i>Myristica fragrans</i> Houtt.	Seed	The seed is used to increase sexual performance, and a carminative and digestive agent
Jowz	Juglandaceae <i>Juglans regia</i> L.	Bark	Used as an anthelmintic
Kaknaj	Solanaceae <i>Physalis alkekengi</i> L.	Fruit	Used in constipation, and to facilitate urination

Table 1. Continued.

Karawiyah	Apiaceae <i>Carum carvi</i> L.	Fruit	Strengthen the stomach, used to increase appetite and breast milk
Kasni, Hindbaa'	Asteraceae <i>Chichorium intybus</i> L.	Whole plant	Used as tonic, in fevers, vomiting diarrhea and enlargement of spleen
Katira	Cochlospermaceae <i>Cochlospermum religiosum</i> L.	Gum	Cooling, sedative, used in cough and gonorrhea
Katira	Sterculiaceae <i>Sterculia urens</i> Roxb.	Gum	Used in sore throat.
Kharnoub	Fabaceae <i>Ceratonia siliqua</i> L.	Fruit	Used in cough and diarrhea
Khirfa	Lauraceae <i>Cinnamomum zeylanicum</i> Blume	Bark	Used as a carminative, useful for checking nausea and vomiting. also, used as antiseptic
Khulanjan	Zingiberaceae <i>Alpinia galangal</i> Willd	Rhizome	Aphrodisiac, joint pains and as stomachic
Lahlah	Liliaceae <i>Colchicum autumnale</i> L.	Rhizome	It is given in rheumatism and gout. Also as external application to reduce pain and inflammation
Limon	Rutaceae <i>Citrus limon</i> L.	Rind	Stomachic and carminative
Lison Al-asfoor	Apocynaceae <i>Holarrhena antidysentrica</i> Wall.	Seed	Used in fevers, dysentery and diarrhea and intestinal worms
Mahaleb	Rosaceae <i>Prunus mahaleb</i> L.	Kernels	Used in aphrodisiac potions, a nutritive
Mulsi	Liliaceae <i>Asparagus adscendens</i> Roxb.	Root	To increase flow of milk-used as a tonic in debility
Murr	Burseraceae <i>Commiphora molmol</i>	Gum-resin	Used in lack of appetite and rheumatic conditions. Also used as mouth wash
Mustaka	Anacardiaceae <i>Pistacia lentiscus</i> L.	Gum-resin	Used as masticatory gum. Considered to be mouth freshener and digestive

Table 1. Continued.

Nakhwa	Apiaceae <i>Trachyspermum ammi</i> L.	Fruit	Used in flatulence and as a digestive
Oud	Thymelaeaceae <i>Aquilaria agallocho</i> Roxb.	Wood	Used as aphrodisiac and carminative. also used to check diarrhea and vomiting
Oud Al-mughata	Lauraceae <i>Litsea chinensis</i> Roxb.	Bark	To stop diarrhea, appetizer and applied for faster wound healing
Oud alsaleeb	Ranunculaceae <i>Paeonia officinalis</i> L.	Tuber	Used to stop convulsions in epilepsy
Oud-alQust	Zingiberaceae <i>Costus speciosus</i> (Koen.) Sm.	Root	The use of the root is as bitter tonic purgative and as an anthelmintic
Qahwa	Rubiaceae <i>Coffea arabica</i> L.	Seed	Stimulant and diuretic
Qarn al-Ghazal	Fabaceae <i>Cassia fistula</i> L.	Fruit	Used in constipation. the pulp is applied on painful joints
Qarunful	Myrtaceae <i>Eugenia caryophyllata</i> Thunb.	Flower	Aromatic, stimulant and carminative, used in flatulence and dyspepsia. The oil of dried flower used in toothache
Qusabzarrira	Gentaniaceae <i>Swertia chirata</i> Buch-Ham.	Whole plant	Used in diabetes, fevers and stomach ache
Qust	Asteraceae <i>Saussurea lappa</i> C.B. Clarke	Root	Used in female complaint and as a carminative, also used in cough
Rasaut	Berberidaceae <i>Berberis aristata</i> Dc.	Root bark	Used in skin diseases and affections of the eyes
Rewand	Polygonaceae <i>Rheum emodi</i> Wall.	Rhizome	Used as a purgative
Rigl alasad	Verbenaceae <i>Verbina officinalis</i> L.	Leaf	Applied the leaves paste on joints to relieve pain and inflammation, also used in fevers
Sakmonia	Convolvulaceae <i>Convolvulus scammonia</i> L.	Gum-resin	Used as diuretic in dropsy

Table 1. Continued.

Sammulfar	Solanaceae <i>Withania somniferae</i> L.	Fruits	Used in rheumatic fevers and pain
Sana Makkah	Fabaceae <i>Cassia senna</i> L.	Leaves	Laxative
Sandal	Santalaceae <i>Santalum album</i> L.	Wood	Used as an aromatic cooling agent and in fevers
Sumaq	Anacardiaceae <i>Rhus coriara</i> L.	Fruit	Used to stop bleeding from lungs and as a diuretic
Sumbul alteeb	Valerianaceae <i>Nardostachys jatamansi</i> Dc.	Root	Used in women diseases especially in hysteria and epilepsy
Tabashir	Gramineae <i>Bambusa arundinacea</i> Willd.	Manna	Useful in fever, cough and in snake bite
Tamar Hindi	Fabaceae <i>Tamarindus indica</i> L.	Fruit	Laxative, used in constipation and dyspepsia. Locally made a popular juice of fruit for cooling effects.
Turanjbeen	Oleaceae <i>Fraxinus floribunda</i> Wall.	Gum	Laxative
Ushba	Liliaceae <i>Sarsaparilla smilax</i> L.	Root	Diuretic, blood purifier and for joint pain
Ustokhudus	Lamiaceae <i>Lavendula stoechas</i> L.	Flower and leaf	Anti-inflammatory, sedative and analgesic
Vaj.	Araceae <i>Acorus calamus</i> L.	Rhizome	Carminative, expectorant and used as a remedy for chronic diarrhea
Yansun	Apiaceae <i>Pimpinella anisum</i> L.	Fruit	Used for kidney stone and as a diuretic. it also used as an appetizer to improve appetite and acidity
Za'afaran	Iridaceae <i>Crucis satirus</i> L.	Stigma	Used in fevers, stimulant, stomachic and also used in the enlargement of liver
Zanjabil	Zingiberaceae <i>Zingiber officinale</i> Rosc.	Rhizome	Good remedy for sea sickness and carminative
Zarawand	Aristolochiaceae <i>Aristolochia indica</i> L.	Root	Tonic and used as a stimulant and to stop excess menstruation and employed in fever
Zarnab	Conferae <i>Taxus baccata</i> L.	Leaf	Used in chest diseases

were gathered by the owners of the herbal shops or with the workers, who are known to be knowledgeable about crude drugs' uses and their preparations and dosage forms example decoctions, infusions, powders, pills and polyherbal compounds, besides, medicated oils and creams etc. All the gathered information was compiled (Nagaraju and Rao, 1990).

## RESULTS AND DISCUSSION

The result of the survey of various herbal drug's trading shops revealed a large number of crude drugs availability. The collected crude drugs are listed in Table 1. The drugs listed in the table were arranged in Arabic and/or local names in alphabetical order. The crude drug's authenticity was determined by their local names (as all the herb sellers have attributed particular local names to the specific crude drug). These local names were crossed checked in the literature and also to determine their botanical/scientific names (Said, 1996; Miller and Morris, 1987; Chopra et al., 1956). For each species, the following information is provided: Local name, botanical and/or scientific name, family name, part(s) used and ailments treated. Seventy-one plants species distributed over 40 families and 69 genera were recorded to have medicinal uses by local inhabitants and expatriates as well.

Long before the advent of modern medical treatment for curing diseases, herbs were the only source to treat various disorders. This tradition is continued even today. It is worth to note the fact that the first drug stores in the world were established in the Arab countries (Azaizeh et al., 2006). The crude drugs used in that period are still used in therapy and some formulations of drugs can be found in official herbal books till date (Saad et al., 2005). Different parts of herbal crude drugs species were used by the inhabitants of the Makkah region as medicines (Table 1). For instance in the treatment of ailments, the utilization of different parts including seed, fruit, root, flower, leaves, tubers, bark and gum etc. The overall 71 samples of crude drugs collected were used in treating about 21 different types of diseases. The highest numbers of species were used as carminative, laxative, anthelmintic, aphrodisiacs, swelling and painful conditions.

Apart from herbal crude drug materials, some animal products, such as, Saqanqoor (a sand lizard), honey bee wax, dried cheese of goat, musk deer, ambergris, ostrich fat and coral were also sold in these herbal drug shops.

In addition, various inorganic substances are also sold. Some of these substances were recorded in this survey which is used for medicinal purposes (Ali and Mahdihassan, 1984). Inorganic substances such as alum, antimony, clay, black salt, soda, and mineral pitch or (mumie) were also found in these shops. It was found that some of the pilgrims especially from Africa, Turkey and Indonesia, etc. bring these along with them and sell it on road side open stalls in different places of the city, streets and shopping malls.

There are some compound drug formulations which were also found in these shops and were mainly produced in Pakistan, India and some other South-East Asian countries. Most prominent products that are available are herbal hair oils, flower water, some types of syrups (example, Safi<sup>®</sup>, etc.), Joshanda<sup>®</sup> as a herbal tea and some oil rubs to relieve painful joints. However, these substances have not been tabulated in the present study.

## REFERENCES

- Ali SAM, Mahdihassan S (1984). Bazaar Medicines of Karachi. The Drugs of Animal Origin. In: Bazaar Drugs and Folk Medicine in Pakistan, Mahdihassan, S. (Eds.). Hamdard, Karachi, pp. 69-73.
- Azaizeh H, Saad B, Khalil K, Said O (2006). The State of the Art of traditional Arab Herbal Medicine in the Eastern Region of the Mediterranean: A Review 3(2): 229-235.
- Chopra RN, Nayar SL, Chopra IC (1956). Glossary of Indian Medicinal Plants. Council of Scientific & Industrial Research, New Delhi. 330.
- Ghazanfar SA (1994). Handbook of Arabian Medicinal Plants. CRC Press, Inc., 2000 Corporate Blvd., N.W., Boca Raton, Florida 33431, p. 265.
- Kamal HH (1975). Encyclopædia of Islamic Medicine. General Egyptian Book Organization P. 869.
- Miller A, Morris M (1987). Plants of Dhofar: The Southern Region of Oman Traditional, Economic and Medicinal Uses. Prepared and published by The Office of The Adviser for Conservation of The Environment, Diwan of Royal Court Sultanate of Oman, p. 361.
- Nagaraju N, Rao KN (1990). A survey of plant crude drugs of Rayalaseema, Andhra Pradesh, India. J. Ethnopharmacol., 29(2): 137-158.
- Pal SK, Shukla Y (2003). Herbal Medicine: Current Status and future. Asian Pacific J. Cancer Prev., 4: 281-284.
- Saad B, Azaizeh H, Said O (2005). Tradition and Perspectives of Arab Herbal Medicine: A Review. Evid. Based Complement. Alternat Med., 2: 475-479.
- Said HM (1996). Medicinal Herbal: A Textbook for Medical Students and Doctors, Vol. 1. Published by Hamdard Foundation Pakistan, Karachi, p. 294.