

**ETHNO-MEDICINAL INVESTIGATIONS IN BAHRAICH DISTRICT  
OF (UTTAR PRADESH) INDIA****<sup>1</sup>Sangeeta Sahani and <sup>2</sup>T. P. Mall**

Department of Botany, Kisan P. G. College Bahraich- 271 801 (U.P.) India.

Article Received on  
09 Nov 2015,Revised on 29 Nov 2015,  
Accepted on 22 Dec 2015**\*Correspondence for****Author****Sangeeta Sahani**Department of Botany,  
Kisan P. G. College  
Bahraich- 271 801 (U.P.)  
India.**ABSTRACT**

The present study reveals about the vast diversity of herbal plants used for the treatment of various ailments by the tribes as well as poor villagers of Bahraich district. The potential of ethno botanical research and need for documentation of traditional knowledge pertaining to the medicinal plant utilization for the greater benefit of mankind is carried out because most of the villages of Bahraich district are not having sufficient medical facilities. But all the villages have the traditional medicines and treatments to cure all the ailments. The rural population has to depend on the local ethnic doctor called as vaiddaya or hakim. They prepare medicines from the medicinal plants available in their locality. They follow all the traditional and ethnic method of preparing

the medicine. Bahraich have well blessed phyto diversity which is a rich source of medicinal plants as well as ethnic communities. The remote locality, poverty, illiteracy and lack of touch with modern civilization make them confined to hold on traditional faith hence they are wholly dependent on indigenous plants for the treatment of various ailments. The investigation was performed by collection of local medicinal plants in consultation with the local tribes as well as poor villagers and medicine venders. The common medicinal plants used by rural tribes were studied and one hundred forty nine plant species belonging to hundred thirty four genera representing sixty one families were found to be utilized in the treatment of various twenty five ailments viz. abortifacient, antidote for snake and scorpion bite, burn, cough, cold, constipation, conjunctivitis, diabetes, ear pain, fever, gastrointestinal troubles, headache, insomnia, jaundice, leucorrhoea, mouth ulcer, respiratory troubles, scrofula, skin and skeletal ailments etc. Various medicinal plant parts viz. leaves, flowers, barks, latex, seeds, rhizome, root, sometimes whole plant were used as ethno medicine. For each plant species, details of scientific name, authors name, vernacular name and family as

well as use were provided along with parts harvested for treatment and the mode of administration.

**KEYWORDS:** Ailments, ethno botanical, ethno medicine, medicinal plants, phyto-diversity, secondary metabolites, traditional knowledge, Bahraich.

## INTRODUCTION

The value of medicinal plants to the mankind is very well proven since Vedic period. It is estimated that 70-80 % of people in developing countries depend on traditional medicines for their primary health needs. India and China are two of the largest countries in Asia which have the richest array of registered and relatively well known medicinal plants.<sup>[1]</sup> Nature has been a source of medicinal plants for thousands of year and an impressive number of modern drugs have been isolated from natural sources. Different medicinal plants have been used to treat various ailments. In fact there is no any plant which is non medicinal. Plant produces a diverse range of bioactive molecules making them a rich source of different types of medicines. Ethno-botanical and ethno-medicinal studies are today recognized as the most viable method of identifying new medicinal plants or refocusing on those earlier reported plants for bioactive constituents. The rich biodiversity of Bahraich district of Uttar Pradesh has provided an initial advantage to its inhabitants for observing and scrutinizing the rich flora for developing their own traditional knowledge in curing various ailments. The primitive tribals acquired the knowledge of economic and medicinal properties of many plants by trial and error methods and they are the store house of such valuable knowledge. This accumulated knowledge is passed on from one generation to the other by oral tradition without any written document.<sup>[2]</sup> The people of the region are rich in ethno-medicinal knowledge owing to their close affinity with the surrounding vegetation. A large number of plant species of immense medicinal value are abundantly found in the district. Medicinal plants form the basis of traditional or indigenous systems of healthcare are being used by the majority of remotely located dwellers of the area. Religious inspiration, inaccessibility and lack of medical facilities in the villages seem to be the cause of depending on these medicinal plant species. Remedies based on these plants often have negligible side effect and due to relatively high cost of allopathic medicines, traditional herbal medicine have become an affordable choice for the poor people in these rural areas. Traditional system of medicine is a wise practice of indigenous knowledge system, which has saved the lives of poor people in

the region.<sup>[3]</sup> There is great traditional knowledge hidden among the tribes and rural people of the district which can be used for human welfare.

Keeping the aforesaid view, the rich ethno medicinal practices of the area have already received considerable scientific attention and the ethno medicinal practices have been documented. The present work is undertaken for the documentation and analysis of various traditional herbal method of treatment for various ailments in the rural areas of Bahraich district.

### STUDY AREA

Bahraich is known as 'city of forest:' because of its natural beauty and rich phyto diversity. It is situated between 28.24 and 27.4 latitude and 81.6 N to 81.3 E longitude, having area about 4696.8 Sq. km. in which 95,040 hectare land is covered by dense natural forests. Bahraich has international border with Nepal on the northern part. Shravasti is in eastern side where as Kheri Lakhimpur in western and Sitapur and Barabanki in southern side. Bahraich is 125 km north-east of Lucknow, which is the state capital of U.P. North - Eastern and Western part of the district is Tarai which is covered by dense natural forests. Saryu and Ghaghra are the main rivers. The climate is hot & humid, maximum and minimum temperature ranges between 44°C to 5°C where as average rainfall is 1,125 mm. The soil of the district is very fertile.<sup>[5]</sup> "Katarniaghat Wildlife Sanctuary" is main point of attraction and specialty of the district Bahraich. Aforesaid ideal environmental factors support the luxurious growth of biodiversity.

### METHODOLOGY

The present study is based on the field survey of Bahraich district of Uttar Pradesh. For the purpose the voucher specimens of ethno-medicinal importance were collected and documented with their ethno-therapeutic data. The information was collected from herbal practitioners or local healers and other experienced persons. They were interviewed for local names, plant part used, method of preparation of medicine, dosages and their mode of administration. The specimens were collected, pressed, dried, preserved, mounted as described by Jain and Rao, 1976<sup>[6]</sup> identified through the available taxonomic literature manuals and floras.<sup>[7, 8]</sup> The specimens were maintained in Herbarium of the Postgraduate Department of Botany. The plants used in the treatment of various ailments are enumerated in Table- with correct botanical name followed by vernacular names and family as well as plant

parts used and mode of administration in respect to simple preparation as well as compound preparation of medicine. The references given in the text are provided with their wave links.

**Table –: Ethnomedicinal plants used in the treatment of various ailments are.**

**Abrus precatorious** Linn., Gumchi (Fabaceae)

►Whole plant or fresh leaves are made into paste and applied on head as well as forehead to cure headache.

**Abutilon indicum** Linn., Kanghi (Malvaceae).

►Leaves as well as flowers are cooked and eaten daily to cure piles.

**Acacia catechu** (Linn. f.) Willd., Khair, Mimosa catechu (Fabaceae).

►Paste of fresh leaves as well as flowers is applied on forehead to get relief in headache.

►Wood is cut and the sap exudates applied on forehead is beneficial for headache.

**Acmella oleracea** Linn. (Syn. **Spilanthes oleracea** Linn.), Spilanthes (Asteraceae).

►Ten ml. decoction of fresh leaves is taken twice daily for few days which cures stomatitis.

►Flower paste is pasted in gums and teeth which produces soothing effect in toothache.

►Three or four flowers are chewed, which produces cooling sensation in toothache and throat.

**Acacia nilotica** Linn., (syn. **A. Arabica** Linn.) Babool (Mimosaceae).

►Paste of fresh flower is applied on head as well as forehead which cures headache.

►Seven leaves are made into paste and taken orally with water daily for a week which cures diarrhea.

►One teaspoonful of bark powder is taken daily for a month which cures leucorrhoea.

►Tender twigs are used as tooth brush which increases strength of teeth.

►Flowers are powdered with equal amount of sugar candy. Ten gm powder is taken twice daily which is beneficial in jaundice.

►Paste of leaves is applied on injuries and swellings.

►Twenty gm stem bark is boiled in four hundred ml water and its decoction is prepared. It is taken daily for a week to cure excessive bleeding of menstruation.

**Achyranthes aspera** Linn., Latjeera (Achyranthaceae).

- ▶Seeds are powdered and tied in a cotton cloth. It is smelled repeatedly in short intervals, after few minutes person will sneeze and harmful waste liquid will be come out with sneezing and headache due to migraine or other causes will disappear.
- ▶The inflorescence is made into paste with the help of water and applied on scorpion sting. It is a potent antidote.
- ▶Leaves are made into paste and warmed. Luke warm paste is tied on joints pain.
- ▶Inflorescence is made into paste and taken orally with water which is beneficial in polyphagia.
- ▶Stem is used as tooth brush which is useful in pyria.

**Acmella oleracea** Linn. (Syn. **Spilanthus oleracea** Linn.), Spilanthus (Asteraceae).

- ▶Ten ml. decoction of fresh leaves is taken twice daily for few days which cures stomatitis.
- ▶Flower paste is pasted in gums and teeth which produces soothing effect in toothache.
- ▶Three or four flowers are chewed, which produces cooling sensation in toothache and throat.
- ▶Paste of root and flower is applied on forehead which produces soothing effect on headache.

**Acorus calamus** Linn., Sweet flag, Sedges, Bach (Acoraceae).

- ▶Decoction of twenty gm. rhizome is taken orally so as to cure headache.
- ▶Paste of root or whole plant is applied on forehead to cure headache.
- ▶Decoction of twenty gm. rhizome is taken orally twice daily for few days to cure joint and muscle pain. It is also useful in arthritis.

**Adhatoda vasica** Nees., Rusa, Arusa Vasaka (Acanthaceae).

- ▶Fifty gm fresh flowers are dried in shade and powdered. It is mixed in sufficient amount of jaggery (gur). It is made into tablets and dried in shade. If one tablet is taken thrice a day cures headache.
- ▶Chewing of two fresh leaves daily in the morning with empty stomach is useful to control the diabetes.
- ▶Five leaves are boiled in a cup of water and a pinch of rock salt is added to it. It is taken twice a day for few days which cure cough and fever.

- ▶ Fresh leaves dried in shade are to be powdered. One teaspoonful of powder is taken with a teaspoonful of honey. It is taken daily in the morning which cures cough and coryza.
- ▶ Ten ml root decoction is taken daily for seven days which cures chronic bronchitis (Black cough).
- ▶ Mature and yellow leaves are warmed and tied on joints.

**Aegle marmelos** Linn., Bel (Rutaceae).

- ▶ Paste of young leaves is applied on forehead to cure headache.
- ▶ Cotton cloth or strips are wetted in the juice of fresh leaves and applied on forehead every thirty minutes cures headache.
- ▶ Twenty gm. fruit pulp is mixed with five gm. powder of fennel seeds (**Foeniculum vulgare** Mill., Fennel, Sauf, Apiaceae.) and taken thrice daily for a week which cures diarrhea.
- ▶ Leaf juice is applied in the eyes thrice a day to cure conjunctivitis.
- ▶ Regular consumption of four young leaves with empty stomach controls diabetes increases immune system as well as purifies the blood.
- ▶ Paste of five leaves mixed with a teaspoonful of cumin (**Cumin cyminum** Linn., Jeera, Apiaceae) powder is taken with a cup of cow milk twice daily for few days which cure leucorrhoea.

**Ageratum conyzoides** Linn., Jangali Pudina, Goat weed, Chick weed, White weed (Asteraceae).

- ▶ Ten ml. juice of fresh leaves is taken daily for a week which cures dyspepsia.
- ▶ Paste of leaves and flower is applied on wound and injuries which stops bleeding.
- ▶ Leaves are made into paste with the help of water and applied on fire burn skin which produces soothing effect on burning pain.
- ▶ Leaf juice is applied externally on leprosy and other skin diseases.
- ▶ Paste of fresh leaves or poultice tied on joints is beneficial for pain.
- ▶ Five ml. juice of fresh leaves is taken twice daily for few days is beneficial in joint and rheumatic pain.

**Alstonia scholaris** Linn., Saptparni (Apocynaceae).

►One teaspoonful of bark powder is taken orally as well as paste of bark is applied on joint and muscles. It is also useful for rheumatic pain.

**Allium cepa** Linn., Onion, Pyaz (Liliaceae).

►Paste of bulb is applied on head as well as on forehead which cures headache due to sunstroke.

►Paste of bulb is rubbed on the sole of feet to cure headache due to sunstroke.

►Onion bulb juice and equal amount of mustard oil (**Brassica compestris** Linn. Brassicaceae) is mixed and warmed. Daily massage of luke warm oil cures joint as well as muscle pain.

**Allium sativum** Linn., Garlic, Lahsun (Liliaceae).

►A clove of garlic is chewed very slightly. Within few minutes headache will disappeared.

►Two cloves of garlic are chewed and a glass of luke warm milk is taken during the headache.

►Three five cloves of garlic are crushed and mixed into hundred ml. milk. It is taken orally in chronic headache.

►Two or three cloves of garlic bulb are fried in ghee (Cow milk fat) and chewed and engulfed with water. It is taken for a month in winter season to cure joint, muscles and rheumatic pain.

►Five cloves of garlic bulb are fried in castor oil. When the garlic becomes black oil is filtered. Massage of this oil cures joint and muscles pain as well as beneficial for rheumatic pain.

**Aloe vera** Linn., Ghritkumari, Ghaikwar (Liliaceae).

►Pulp or jel of leaves is taken and a small amount of turmeric (**Curcuma longa** Linn., Zingiberaceae) is mixed to it. It is applied on forehead to cure headache.

►Twenty gm gel or juice of leaves is taken with honey. It is beneficial for joints and other body pain.

►Massage of leaf gel on joint and muscles cures the inflammation and pain.

**Amaranthus spinosus** Linn., Chaulai (Amaranthaceae).

►Paste of fresh leaves of **Amaranthus** and Bhingraj (**Eclipta alba** Linn., Asteraceae) is applied on forehead cures headache.

- ▶ Paste of root is applied on the body which cures contagious skin infections.
- ▶ Leaves are made into paste with Makoi leaves (**Solanum nigrum** Linn., Solanaceae). Luke warm paste is tied on painful joints.

**Amaranthus viridis** Linn., Slender amaranth (Amaranthaceae).

- ▶ Poultice of leaves is placed on forehead cures headache.
- ▶ Leaves are made into paste with five black papper (**Piper nigrum** Linn., Piperaceae). Paste is applied on forehead cures headache.

**Amomum subulatum** Linn., Elayachi (Zingiberaceae).

- ▶ Paste of seeds is applied on forehead to cure headache.
- ▶ Smelling of seeds produces relief on headache.

**Andrographis paniculata** (Burm.f) Wall ex. Nees (= **Justicia peniculata** Burm.f., **J. patibrosa** Russ., **J. stricta** Lam.ex stud) Kalpnath, kalmegh, Bhunimba (Acanthaceae) :

- ▶ Ten ml juice of fresh leaves is taken with water twice a day for a week which cures leucorrhoea.
- ▶ Kalpnath leaves are made into paste with equal amount of guma (**Leucas aspera** Linn. Lamiaceae), bhangariya (**Eclypta alba** Linn. Asteraceae), neem (**Azadirachta indica** Linn. Meliaceae), and kanja leaves (**Pongamia pinnata** Linn. Cesalpiniaceae) as well as small amount of ajwain (**Carum copticum** Linn. Apiaceae) and heeng (**Ferula asfoetida**). Pea size tablets are prepared by this paste and dried in shade. One tablet is taken with empty stomach twice daily with the help of fresh water for twenty one days which cures seasonal fever, viral fever, constipation, and acidity as well as develop appetite and increases immune system.

**Anisomella indica** Linn., Kala Bhangra (Lamiaceae);

- ▶ Decoction of leaves is taken orally to cure joint and muscle pain.
- ▶ Paste of leaves is mixed with sesame oil (**Seasmum indicum** Linn. Pedaliaceae) and warmed. It is applied on joint and muscles to cure pain.

**Annona squamosa** Linn. Sharifa, Sitaphal (Annonaceae).

- ▶ Seeds are powdered and mixed in mustard oil (**Brassica compestris** Linn. Brassicaceae). The mixture is applied on head in hairs to remove lice.
- ▶ Three fresh leaves are chewed daily with empty stomach to control diabetes.



- ▶ Sweet fruits are eaten daily for few days which increase hemoglobin content of the blood.
- ▶ Dried root powder is taken with water once daily in the morning for four days. It is potent abortifacient.

**Argemone maxicana** Linn., Pilikitari, Bharghar (Papaveraceae).

- ▶ Latex is applied on cut and wounds daily till cure.
- ▶ Two drops of latex is applied in eyes twice a day which cures redness and water discharge due to conjunctivitis.

**Asparagus racemosus** Willd., Shatavari (Liliaceae).

- ▶ Fresh root of the plant is crushed and its extract is taken. The extract is mixed with equal amount of sesame oil (**Seasmum indicum** Linn., Pedaliaceae) and boiled on low flame of fire. When only oil is remained mixture is put out of fire. It is cooled and at the morning time massage with the oil on the head as well as forehead cures any type of headache.
- ▶ Fresh root of the plant is crushed and its extract is taken. The extract is mixed with equal amount of sesame oil (**Seasmum indicum** Linn., Pedaliaceae) and ginger juice (**Zingiber officinale** Roscoe., Zingiberaceae). It is boiled on low flame of fire. When only oil is remained mixture is put out from fire. Massage with the oil on joints and muscles cures the pain.
- ▶ Soft leaves are cooked in cow milk fat and eaten daily to cure night blindness and cataract.
- ▶ Twenty ml. juice of fresh leaves is mixed with a teaspoonful of honey and taken orally to cure stomach-ache and inflammation.
- ▶ Ten gm. powder of shatavari is mixed with a glass of cow milk and taken orally twice for five days to cures bloody dysentery.

**Azadirachta indica** A. Juss., Neem (Meliaceae).

- ▶ Paste of tender leaves is applied on head as well as on forehead. It cures headache due to heat.
- ▶ Neem oil is applied on forehead produces relief on headache.
- ▶ Seeds are made into paste with mustard seeds (**Brassica campestris** Linn. Brassicaceae) and applied on joint and muscles as well as to rheumatic pain so as to cure.

**Barleria prionitis** Linn., Katsariya, Piyabasa (Acanthaceae)

- ▶ Ten ml decoction of fresh leaves is mixed with sufficient amount of honey and taken orally. It is taken twice daily to cure cough.
- ▶ Ten ml juice of fresh leaves is taken and a pinch of cumin powder is added to it and taken daily for few days which control excessive urination of diabetes.

**Bombax cieba** Linn., Semal, Shamli, Mocha, Red cotton tree (Malvaceae).

- ▶ Paste of bark is applied on forehead cures headache as well as giddiness due to headache.
- ▶ Paste of leaves, flower, and bark is applied on wounds, boils which cures swelling as well as heals the wound.
- ▶ Gum obtained from the tree known as Mocharas is applied on burn skin which creates cooling sensation. It is applied twice or thrice daily till cure.
- ▶ Ten ml. decoction of root is taken twice daily for a week which cures dysentery.
- ▶ Paste of bark is applied on forehead which cures headache as well as giddiness due to headache.
- ▶ One teaspoonful of Gum is mixed with a teaspoonful of dried seed powder of mango (**Mangifera indica** Linn., Anacardiaceae) and a teaspoonful of honey it is taken twice daily for few days which cures painful menstruation.
- ▶ Paste of seeds is applied on small pox and chicken pox for getting relief.

**Bauhinia variegata** Linn., Kachnar (Caesalpinaceae).

- ▶ The bark and flowers are made into paste and a small amount of Bee wax is added to it. Luke warm poultice of paste is tied on wounds and boils daily till cure.
- ▶ Paste of leaves and flowers is applied on burn skin twice a day which reduces inflammation as well as cures.
- ▶ Ten ml. decoction of bark is taken daily with a teaspoonful of honey twice daily for 15 days which cures scrofula (Gandmala, kanthmala).
- ▶ The bark is to be powdered and five gm. of powder is taken twice daily with the help of water for 20 days for the treatment of scrofula (Gandmala).

**Boerhavia diffusa** (Linn.) Non. Cons. Punarnava (Nyctanginaceae).

- ▶ Leaves are made into paste with dried ginger (**Zingiber officinale** Roscoe. Zingiberaceae). Paste is applied on joint and muscles so as to cure the pain.

- ▶Twenty ml. extract of fresh leaves is taken daily with water for few days controls diabetes. It is also potent hepato-protective, useful in dropsy as well as immunomodulator.
- ▶Cooked leaves are eaten daily which is beneficial in heart disorders.
- ▶Root and leaves are potent antidote for all types of snake bite.
- ▶Three gm powder of root is taken orally with water which improves appetite.

**Brassica campestris** Linn., Mustard, Sarso (Brassicaceae).

- ▶Putting of four drops of oil in both nostrils and ears twice daily cures headache due to cold.
- ▶Two hundred ml. of seed oil is taken and twenty gm. camphor (**Cinnamomum camphora** L. J. Presl. Lauraceae) is mixed to it and is kept in glass bottle very close to sunlight for few days. Daily massage of this oil in winter season cures joint pain as well as muscle, body and rheumatic pain.

**Brassica juncea** (Linn.) Czern. & Coss., Rye (Brassicaceae).

- ▶Seeds are made into paste with help of water. Paste is applied on forehead to cure headache.
- ▶Seeds are made into paste and small amount of camphor (**Cinnamomum camphora** L. J. Presl. Lauraceae) is mixed to it and thick layer of paste is applied on muscle and joints.
- ▶Oil of seeds is taken and small amount of camphor is mixed in oil. Massage of oil is beneficial in joint and muscle pain.

**Bryophyllum pinnatum** (Lam.) Oken., Ajuba, Parnbeej (Crassulaceae).

- ▶Paste of leaves is pasted on forehead cures headache.
  - ▶Ten ml juice of fresh leaves is mixed with one gm dried ginger powder (**Zingiber officinale** Roscoe, Zingiberaceae) and taken orally to cure stomach pain.
- Fresh leaves are warmed and made into paste and tied on wounds or injuries so as to cure.

**Caesalpinia bonduc** (Linn.) Roxb., Kat karanj, Fever nut (Caesalpiniaceae).

- ▶Ten gm seeds of kat karanj and sahjan (**Moringa oleifera** Linn., Moringaceae) two leaves of tejpatra (**Cinnamomum tamala** Linn., Lauraceae) and five gm ginger (**Zingiber officinale** Roscoe., Zingiberaceae) are powdered. It is boiled in 500 ml water and its aroma or infusion is taken by steaming till the steam comes out. After few minutes person will sneeze and his headache due to migraine or any type of headache will disappear.
- ▶Paste of leaves and flower is topically applied on forehead produces relief on headache.

►Seeds are made into paste and stir fried in mustard oil (**Brassica compestris** Linn. Brassicaceae). Paste is tied on joints.

**Callicarpa macrophylla** Vahl., Daiya (Verbenaceae);

►Leaves are warmed and tied on painful joints so as to cure.

**Cannabis sativa** Linn., Bhang (Cannabinaceae).

►Leaves are made into paste and tied in a cotton cloth. It is smelled slowly which results soothing effect on headache.

►Two drop luke warm juice of fresh leaves is put into the ear which cures headache due to cold.

**Cardamine scutata** Linn., Chamsur (Brassicaceae);

►Leaves or fresh shoots are cooked and eaten daily for few days to cure joint and muscles pain.

►One teaspoonful powder of seeds is taken orally mixed with a glass of milk it is taken for few days to cure joint and muscles pain.

**Carica papaya** Linn., Papita, Papaya, (Caricaceae).

►Decoction of leaves is taken orally to treat hypertension, and obesity.

►Eating of ripe fruit cures constipation and other stomach disorder.

►One cup decoction of seeds is taken twice daily for 20 days which cures joints pain as well as rheumatic pain.

►Paste of seeds is given in empty stomach for three to four days to induce abortion upto three months of pregnancy.

**Carissa congesta** Wight., Jangali Karaunda (Apocynaceae).

►Two or three tender twigs of five inches are chewed. After twenty minutes the person will sneeze seven to ten times and his headache, migraine or any type of headache disappears forever.

**Cassia fistula** Linn., Amaltas (Caesalpiniaceae).

► Leaves are made into paste with the help of water and applied on burn skin twice daily till cure.

- ▶Dried leaves are made into powder and one teaspoonful of is taken daily with water which controls diabetes.
- ▶Twenty leaves are warmed and its poultice is prepared. It is tied on joints cures pain.
- ▶Juice of fresh leaves is massaged on joints and muscles to cure pain.

**Cassia occidentalis** Linn.,Kasaundi (Caesalpiniaceae).

- ▶Paste of leaves as well as seeds is applied on skin infections so as to cure.
- ▶Two-two drops juice of leaves is put in the ear to cure pain.
- ▶Leaves are made into paste with five or six black pepper (**Piper nigrum** Linn. Piperaceae). Paste is applied on the swellings of scrofula.
- ▶Fresh leaves are made into paste and applied on wounds and injuries so as to cure.

**Cassia tora** Linn., Chakwad (Caesalpiniaceae).

- ▶Twenty five gm. seeds are made into paste with the help of water. Paste is applied on forehead cures headache.
- ▶Decoction of ten gm root is taken daily for few days which is useful in diabetes.
- ▶Decoction of fresh leaves is taken orally which is useful in any type of swellings of body.
- ▶Fresh leaves are cooked and eaten which is useful for skin diseases.
- ▶Seeds are made into paste with milk and mixed in castor oil (**Ricinus communis** Linn., Euphorbiaceae). This paste is applied on any type of leprosy so as to cure.

**Catharanthus roseus** (Linn.) G.Don., Madagascar Periwinkle (Apocynaceae).

- ▶Poultice of leaves and flower is applied on forehead cures headache.
- ▶Flower and leaves are chewed to control diabetes.

**Calotropis procera** W.T.Aiton., Madar (Asclepiadaceae).

- ▶Two drops of leaf juice is put into the both nostrils twice daily which cures headache.
- ▶Paste of root is applied on forehead cures headache.
- ▶Mature leaves are warmed and tied on joints.
- ▶Leaves are made into paste and its poultice prepared. It is warmed with castor oil (**Ricinus communis** Linn., Euphorbiaceae). Warm poultice is tied on joint thrice a day cures joints pain.

**Calotropis gigantea** R. Br., Aak (Asclepidiaceae).

►Two younger leaves are made into paste and taken orally before sunset cures headache of cold & migraine.

**Centella asiatica** Linn. Brahmi (Apiaceae).

►Paste of leaves are made into paste and applied on forehead cures headache.

►Whole plant is dried in shade and powdered. Five gm. of powder is taken orally with a glass of milk or a teaspoonful of honey produces relief on headache if taken for ten days enhances memory.

►Decoction of whole plant is taken orally creates soothing effect on headache.

**Cestrum nocturnum** Linn., Night queen, Ratrani (Solanaceae).

►Smelling of flowers before going to bed cures headache due to tension and helps in sleeping.

**Chassalia curviflora** (Wallich) Thw., Curved flower woody chasalia (Rubiaceae).

►Root is made into paste and applied on forehead cures headache.

►Root and fresh leaves are made into paste and its poultice is prepared. It is applied on forehead which cures headache.

**Chenopodium album** Linn., Goosefoot, Bathua (Amaranthaceae);

►About 20-25 leaves are boiled in water and filtered a teaspoonful of lemon juice (**Citrus medica** Linn. Rutaceae) is added to it and taken daily for a week which cures constipation.

►Twenty ml. juice of fresh leaves is taken daily in the morning with empty stomach for 2 months in winter season which cures rheumatism.

**Cinnamomum tamala** Ham., Tejpatta (Lauraceae).

►Fresh or dried leaves are made into paste with rose water or water and applied on forehead cures headache due to cold as well as heat.

►Tea made of **Cinnamomum** leaf powder and tulsi (**Ocimum sanctum** Linn., Lamiaceae) is taken twice cures headache due to cold & cough.

►Leaves (Fresh or dried) are made into paste and applied on joints and muscles.

**Cinnamomum zeylanicum** Blume., Cinnamon, Dalchini (Lauraceae).

►Paste of bark is warmed and applied on forehead which cures headache due to cold.

- ▶ Ten gm powder of cinnamon is mixed in a cup of water and a teaspoon honey. It is taken for few days to control blood cholesterol.
- ▶ Paste of leaves is luke warmed and applied on forehead to cure headache.
- ▶ One teaspoonful of dalcini powder is mixed in a glass of luke warm milk and a teaspoonful of honey is added to it. It is taken orally when headache. It cures hemi-cranial headache.
- ▶ Cinnamon is made into paste with honey and applied on skin disorders.
- ▶ Bark powder is made into paste with sufficient amount of honey and applied on painful joint and muscles as well as one teaspoonful of bark powder is mixed with honey and luke warm water and taken orally.

**Citrus aurentifolia** Linn., Lemon, Neemboo (Rutaceae).

- ▶ Paste of leaves applied on forehead cures headache.
- ▶ The rind (peel) of three lemons are crushed and made into paste. Paste is applied on forehead cures headache due to heat.
- ▶ Putting two drops of lemon juice in the nostrils cures headache.
- ▶ One lemon fruit is cut into two pieces and is warmed and rubbed on forehead. Continuously rubbing of luke warm piece for thirty minutes is beneficial in headache.
- ▶ One piece of a lemon is squeeze into a glass of luke warm water and a teaspoonful of honey is mixed to it. It is taken twice daily for multiple days which cures painful joints and muscles and it is also a potent remedy for rheumatism.

**Citrus medica** Linn. Neembu (Rutaceae).

- ▶ Juice of one lemon fruit is mixed in a glass of water along with a pinch of common salt and taken orally to cure headache due to acidity or gas.
- ▶ Ten ml juice of root is taken with five black pepper (*Piper nigrum* Linn., Piperaceae). It is taken twice for three days for abortion.
- ▶ Leaves are warmed and tied on painful joint and muscles so as to cure

**Cleome gynandra** Linn., Hulhul (Capparidaceae).

- ▶ Poultice of leaves is placed on forehead cures headache.

**Cleome viscosa** Linn., Hurhur (Capparidaceae).

► Fresh leaves and seeds are made into paste with the help of water and applied topically on forehead cures headache.

**Clerodendrum glandulosum** Linn. (Lamiaceae).

► One teaspoonful of fresh leaf extract is taken orally as well as paste of fresh leaves is applied on forehead reduces stress and tension.

**Clerodendrum serratum** (Linn.) Moon., Bharangi (Verbenaceae).

► Root is made into paste with warm water and is applied on head as well as forehead cures headache.

► Stem is used as tooth brush which is useful in toothache.

**Clitoria ternatea** Linn., Aparajita (Fabaceae).

► Two or three drop juice of legume or seed is put in both nostrils twice a day cures hemi-cranial headache.

► Paste of seed and root is applied on forehead cures headache.

► Massage of oil on the joints and muscles cures pain.

► Seeds are made into paste and warmed. Paste is applied on joint and muscles so as to cure pain.

**Convolvulus microphyllus** Sieb ex. Spreng., Shankpushpi (Convolvulaceae)

• Three gm powder of plant is taken daily with sufficient amount of honey which increases memory.

• Ten ml. juice of leaves and flower is mixed with a teaspoonful of honey and taken daily. It is taken daily for a month which cures hysteria.

• Five gm. powder of shankpushpi is taken twice daily with a cup of control and cow milk. It is beneficial in diabetes.

• Ten ml. juice of fresh plant is taken twice daily for few days to control and cure high blood pressure.

**Curcuma amada** Linn., Amahaldi (Zingiberaceae).

► Paste of rhizome applied on forehead cures headache.

• Paste of rhizome is fried in mustard oil (**Brassica campestris** Linn. Brassicaceae). Paste is applied on joint and muscle to cure pain.



**Curcuma longa** Linn., Turmeric, Haldi (Zingiberaceae).

- ▶ Inhaling the smoke of fresh leaves twice a day for few days cures the chronic headache.
- ▶ Rhizome is made into paste with the help of water. A thick layer of paste is applied on forehead which cures headache.
- ▶ Half teaspoonful of rhizome powder taken with luke warm water twice daily cures joint pain, muscles pain as well as rheumatic pain.
- ▶ One teaspoonful of rhizome paste and sufficient amount of jaggery fried in pure ghee (Cow milk fat) and mixed in a glass of milk. It is taken twice daily for a week to cure joint, muscle as well as body and rheumatic pain.

**Cuscuta reflexa** Roxb., Amarbel (Cuscutaceae)

- ▶ Ten gm of whole plant is made into paste with four or five black piper (**Piper nigrum** Linn. Piperaceae) and taken with water. It is useful in diabetes.
- ▶ Whole plant is made into paste and applied on the skin cures itching and dermatitis.
- ▶ Four gm. of fresh plant is boiled in water and taken orally. It is taken for a week which purifies blood.
- ▶ Whole plant is made into paste and its extract is mixed with sesame oil (**Seasmum indicum** Linn. Pedaliaceae). This oil is applied on head. It is used thrice a week so as to cure hair fall and other hair problems.

**Cymbopogon citratus** (DC) Stapf., Agiaghas (Poaceae).

- ▶ Infusion of crushed leaves applied on forehead cures headache.
- ▶ Leaves are boiled along with black pepper (**Piper nigrum** Linn., Piperaceae) and ginger (**Zingiber officinale** Roscoe., Zingiberaceae). Concentrated solution taken like tea produces soothing effect on headache.

**Cynodon dactylon** Linn., Doobghas (Poaceae).

- ▶ Fresh leaves and equal amount of lime (Edible calcium carbonate) is made into paste and applied on forehead cures headache.
- Paste of fresh leaves is applied on wound, injuries as well as on other skin diseases to cure due to its healing property.
- ▶ The poultice of leaves is applied on boils or wounds twice daily till the cure.

►Five fresh leaves are made into paste it is taken with water daily for fifteen days which cures dysentery. It is also a potent natural blood purifier anti diabetic as well as anti inflammatory.

**Dalbergia sissoo** Roxb., Sheesham (Fabaceae).

- The massage of seed oil is useful in rheumatic pain.
- Paste of leaves is applied on wounds twice a day so as to cure.
- Ten ml. juice of fresh leaves is taken twice. It is beneficial in leucorrhea.
- Leaves are warmed and tied on breast swelling.
- Decoction of leaves is taken orally which cures wounds and other skin disorders.

**Datura stramonium** Linn., Dhatura (Solanaceae).

- One seed is engulfed with water twice daily for a week cures chronic headache.
- One seed is engulfed with water twice daily for a week cures chronic headache.
- Leaves are made into paste and applied on painful joints.

Poultice of leaves is tied on painful joints.

•Whole plant is fried in sesame oil (**Seasmum indicum** Linn., Pedaliaceae) when plant becomes black, oil is filtered. Massage of this oil is beneficial in joint and muscle pain. If leaves of Dhatura are tied on joint pain after massaging cures pain in a very short duration.

**Daucus carota** Linn., Gajar, Carrot (Apiaceae).

- Pure ghee (curd fat) is applied on leaves and warmed over heat and mashed into paste. Two or three drops of its extract is put into nostrils and ear cures headache due to migraine or cold.
- Paste of carrot is applied on burn skin twice daily which produces soothing effect on burning pain.
- Four drops juice of rhizome is put in the both nostrils which cures hiccup (hichaki).
- Pure ghee is applied on leaves warmed over heat and mashed into paste. Two or three drops its extract is put in the nostrils and ear which cures headache.
- One cup juice of fruit is taken daily which is beneficial in diarrhea.
- The decoction of seed is taken for irregular menstruation. If taken in high doses it induces abortion.

**Eclypta alba** Linn. (syn. **E. prostrata** Linn.) Bhringraj, Bhangraiya (Asteraceae).

- Five ml juice of fresh leaves is mixed with five ml. goat milk. It is luke warmed and two drops of mixture is put in both nostrils twice a day for five days cures migraine headache.
- Fresh leaves are made into paste with black piper (**Piper nigrum** Linn. Piperaceae). Poultice of paste is tied on joints.
- Fresh leaves are made into paste with mint (**Mentha arvensis** Linn. Lamiaceae). Paste of poultice is tied on painful joints.

**Emblica officinalis** Gaertn., Awla (Euphorbiaceae).

- Twenty gm dried fruit of awala (**Emblica officinalis** Linn., Euphorbiaceae) and equal amount of coriander seeds (**Coriandrum sativum** Linn., Apiaceae) are soaked in water in the night. It is filtered in the morning, sufficient amount of sugar candy (mishree) is mixed in the filtrate and taken daily in the morning for a week cures acute headache.
- Twenty gm dried fruit and equal amount of juggary is taken in five hundred ml water and its decoction is prepared. Decoction is taken twice to cure chronic joint and muscle pain.

**Eucalyptus globulus** Linn., Eucalyptus (Myrtaceae).

- Inhaling the vapour of hot water with few drops of **Eucalyptus** oil cures headache.
- Fresh leaves are made into paste with isabgol husk (**Plantago ovata** Linn., Plantaginaceae) and applied on forehead cures headache.
- Leaves and flowers are boiled in 500 ml. of water and its steam is taken through vaporization process which produces relief in headache due to cold and also helps in curing cold & cough.
- Five drops of eucalyptus oil and five gm. of camphor (kapoor) is boiled in 500 ml. water. Its vapour is taken which cures headache due to sinus pain & irritation.

**Euphorbia hirta** Linn., Dudhia ghas (Euphorbiaceae).

- Paste of leaves is applied on wounds, boils and pimples daily for few days which cure it due to its healing property.
- Sap of plant is applied on cracked or chapped lips which heal it.
- Paste of root is applied on snake bite.
- Gargling with root decoction twice daily cures mouth ulcer.

- ▶Twenty gm fresh leaves are made into paste with five–seven black piper (**Piper nigrum** Linn., Piperaceae). It is given in snake bite. It is potent antidote.
- ▶Fresh leaves are made into paste and mixed with butter. Paste is applied on eaching.
- ▶Ten ml decoction of whole plant is taken mixed with sufficient amount of honey. It is beneficial in asthma.
- ▶Sap milk of plant is applied on face so as to cure pimples and acnes.
- ▶Ten gm paste of leaves is taken with water for few days to cure diarrhea.

**Ficus benghalensis** Linn., Bargad (Moraceae).

- ▶Milky juice or exudates of tree applied on forehead is beneficial for inflammation of headache due to heat.
- ▶Latex of plant is applied on joint and muscles twice daily which cures respective pain.
- ▶Ghee (cow milk fat) is applied on leaves and tied on swellings of joints.
- ▶Leaf buds are made into paste and mixed with cow milk curd. It is applied on burn skin or other inflammation.
- ▶Latex or sap milk is applied daily on the knot of scrofula.

**Ficus racemosa** Linn., Gular (Moraceae)

- ▶Eating of fruit cures stomachache.
- ▶Ten ml. juice of fruit is taken mixed with five gm sugar candy. It is taken daily for ten days to cure leucorrhea.
- ▶Paste of bark is applied on painful joints and swellings.

**Ficus religiosa** Linn., Peepal (Moraceae).

- ▶Three young leaves are chewed very slowly daily for five days to cure headache due to cold & cough.
- ▶Fresh leaves are warmed and tied on joint and muscles.

**Foeniculum vulgare** Mill., Fennel, Sauf (Apiaceae).

- ▶A teaspoonful of Fennel seeds are chewed and engulfed with a glass of luke warm water. It is taken daily in the night before sleeping which cures constipation.
- ▶Five gm. of Fennel seeds are taken daily after meal which prevents formation of gas in the gastrointestinal tract. It is a potent carminative as well as natural blood purifier.

►Fennel seeds are soaked in a cup of water it is filtered with sieve. Washing the eyes with filtered water is useful in sore eyes, puffy eyes, and blood shot eyes.

**Fumaria indica** Linn. Bangajar (Fumariaceae)

►One teaspoon powder of dried whole plant is taken twice with water. It is potent anthelmintic as well as diuretic.

**Glycosmis pentaphylla** (Retz.) A. DC. Orange berry (Rutaceae)

►Paste of leaves mixed with ginger rhizome paste (**Zingiber officinale** Roscoe, Zingiberaceae) is applied for eczema and skin affections.

►Ten ml. juice of fresh leaves is mixed with sugar and taken with empty stomach in the morning to eradicate ascaris.

►Juice of fresh leaves is taken in fever and liver complications.

►Decoction of root is taken for intestinal troubles.

**Gmelina arborea** Roxb., Gambhari, Madhuparnika (Verbenaceae).

►Paste of fresh leaves applied on forehead cures headache due to fever.

**Grewia asiatica** Linn., Dhamin (Teliaceae)

►Decoction of root is given in urinary troubles.

**Gymnema sylvestre** R. Br. Gurmar, Madhuvinashini, Sugar killer (Asclepidaceae).

►Fresh leaves are chewed daily to control diabetes.

►Extract of fresh leaves is taken daily for few day to control diabetes.

►Decoction of root and leaves is used in stomach pain.

**Helianthus - annuus** Linn., Surajmukhi, Sunflower (Asteraceae).

►Paste of seeds is warmed with leaf juice of sunflower and applied on forehead and temple of head daily for five days cures hemi-cranial headache as well as chronic headache.

**Hibiscus rosa - sinensis** Linn., Gurahal (Malvaceae).

►Paste of leaves applied on head as well as forehead cures headache.

►Fifteen gm paste of stem bark is given orally for five days which causes abortion.

►Fresh leaves are made into paste with the help of water and tied on joints and muscles which produces relief in pain and reduces swellings.

**Ipomoea aquatica** Forsk. Syn. **I. reptans** (Linn.) Poir, Karmua, Nari ka saag. (Convolvulaceae).

► Whole plant is cooked and eaten daily for a week which is useful in digestive problems as well as liver diseases.

**Ipomoea fistulosa** Mart ex. Choisy, Behaya, Morning glory (Convolvulaceae).

► Four or five leaves are taken and Mustard (**Brassica campestris** Linn. Brassicaceae) oil is applied on one side. It is warmed and tied on rheumatic pain.

**Jasminum sambac** (Linn.) Ait. (Oleaceae).

► Infusion of crushed flowers is applied topically on forehead which cures headache.

**Lantana camara** Linn., Kuri (Verbinaceae).

► Paste of leaves is applied on wounds twice a day till cure.

► Paste of root or whole plant paste is used as antidote for snake bite.

**Lavandula officinalis** Linn. (syn **L. angustifolia** Mill.) Lavender (Lamiaceae).

► Few flower buds are boiled in 500 ml. of water. Its infusion or aroma is taken by steaming till the steams come out. After few minutes face will be wet and headache disappears.

► Oil extracted from flower bud is rubbed on forehead and temple of head cures chronic headache.

► Massage of oil cures inflammation of joints and muscles.

► Paste of leaves and flowers is warmed and applied on joint and muscles so as to cure.

**Lawsonia inermis** Linn., Mehendi (Lathyraceae).

► Paste of leaves is applied on scalp which cures headache.

► Flowers are made into paste with rose water and applied on forehead to cure headache.

► Leaves are made into paste with the help of water and applied on burn skin which cures burning pain and prevents boils to occur.

► Leaves are taken with equal amount of Castor (**Ricinus communis** Linn. Euphorbiaceae) leaves and made into paste. Paste is warmed and applied luke warm on joints and muscles to cure pain.

**Leucas aspera** Linn., Guma (Lamiaceae).

- ▶ Whole plant is crushed and boiled in a glass of water. Its infusion is inhaled through steaming which cures headache due to sinus, cough and cold.
- ▶ Whole plant is crushed and boiled with water. The steam is inhaled twice a day for a week which cures nasal congestion, cough, cold, fever as well as headache due to sinusitis.
- ▶ For unconsciousness due to snake bite twenty gm. paste of leaves is given orally with water and two- two drops of leaf juice is put in both nostrils.
- ▶ Two drops of flower juice is put in both nostrils thrice daily for a week which cures sinusitis.
- ▶ Twenty ml. juice of fresh leaves as well as flower or its decoction is given once for three days which expelled intestinal worms in children.
- ▶ Whole plant paste is applied on wounds, cuts, boils, as well as on painful swellings is tied with cotton cloths. It is applied for few days which wheals the wounds.
- ▶ Leaves and flowers are cooked and taken for ten days which is useful in rheumatic pain.
- ▶ Fresh Leaves are constantly rubbed on affected area of scorpion bite which provides relief.

**Linum usitatissimum** Linn., Alsi, Flaxseed, Linseed (Linaceae).

- ▶ Seeds are made into paste with cool water. It is applied on forehead which cures headache.
- ▶ Poultice of luke warm oil is tied on swellings of joint pain.
- ▶ Seeds are made into paste with Psidium husk (**Plantago ovata** Linn., Isabgol, Plantaginaceae) and tied on joints.

**Litsea glutimosa** (Lour.) CB., Maida (Lauraceae)

- ▶ Leaves are warmed and tied on joints.
- ▶ Leaves are made into paste with **Curcuma** rhizome (**Curcuma amada** Linn., Zingiberaceae) and rock salt. Warm paste is tied on painful joints and muscle reduces swelling and produces relief in pain.

**Madhuca indica** Linn. (syn. **M. longifolia** (J.Koing) J. F. Macbr) Mahua (Sapotaceae).

- ▶ Twenty ml. decoction of fifty gm. flower is taken daily for a week to cure headache due to cough and cold.
- ▶ Luke warm paste of fresh bark is applied twice daily on joint and muscles which produces relief in joint and muscle pain.

►Whole plant decoction is taken orally which is useful in joint and muscle pain.

**Mangifera indica** Linn. Mango, Aam, (Anacardiaceae).

►One teaspoonful of leaf powder is taken daily in the morning with empty stomach for twenty days which controls diabetes.

►Internal seed is roasted and powdered. Two gm. powder is mixed in sufficient amount of honey and given orally to children to cure diarrhea. It is taken till the cure.

►Raw fruit is roasted and mashed in a glass of water and it is filtered. One table spoonful of mint juice (**Mentha arvensis** Linn., Lamiaceae) and a pinch of black or common salt is added to filtrate and taken twice daily for five days. It is beneficial in cholera and sun-stroke.

►One teaspoonful of leaf powder is taken daily in the morning with empty stomach for twenty days which controls diabetes

**Mallotus philippensis** Muell., Rohini, Sinduri, Kamala (Euphorbiaceae)

►Paste of fresh leaves tied on wounds so as to cure.

►Paste of leaves and seeds applied on fungal skin infections.

►The powder of red glands of the fruit is taken with milk to expel tapeworms. It is a potent anthelmintic.

►The powder obtained from the fruits is mixed with coconut oil and applied externally as an antiseptic on skin diseases.

**Melia azadirachta** Juss., Bakyan (Meliaceae)

►Paste of leaves is applied on scrofula.

►Paste of leaves applied on forehead cures headache.

►Paste of flower and equal amount of fresh leaves is topically applied on forehead as well as on the temple of head to cure headache

►Paste of flowers applied on itching or other skin problem and wounds so as to cure.

►Seeds are made into paste with mustard seeds (**Brassica campestris** Linn., Brassicaceae). Paste is applied on arthritis.

►Leaves are warmed and tied on swellings.

►Poultice of leaves is tied on swelling of joints which produces relief.

**Melissa officinalis** Linn., Lemon Bam (Lamiaceae).



- ▶Herbal tea of leaves or ten ml. extract of fresh leaves is taken orally which produces calming effect and reduces stress headache.
- ▶Two or three drops of essential oil obtained by plant is applied on forehead to cure headache.
- ▶Two leaves and four flowers are boiled in a glass of water. Its infusion is taken through steaming produces soothing effect on headache.

**Mentha arvensis** Linn., Pudina, Mint (Lamiaceae).

- ▶Juice of fresh leaves applied on forehead cures headache.
- ▶Paste of leaves is applied on forehead cures headache due to heat.

**Mentha piperata** Linn., Pepper mint (Lamiaceae).

- ▶One or two drops of oil extracted from shoot applied on forehead creates soothing effect and cures headache.
- ▶Infusion of leaves is taken through steaming produces relief in headache.
- ▶Paste of fresh leaves applied on joints and muscles cures the inflammation & pain.

**Mimosa pudica** Gamble., Chhuimui (Mimosaceae).

- ▶Root is made into powder mixed with honey in equal quantities. One teaspoonful of is taken for twenty days which cures asthma.
- ▶Twenty ml. decoction of ten gm. mature root is taken orally which is useful in joint pain as well as rheumatoid pain.

**Momordica charantia** Discourt., Bitter guard, Karela, (Cucurbitaceae).

- ▶One cup juice of leaves is taken daily for five days in the night before going to bed. It is a potent vermicide.
- ▶One cup of fruit juice is taken daily with empty stomach to control the diabetes.
- ▶Application of fruit juice on fire burn skin twice a day is beneficial.
- ▶Luke warm juice of fruit is applied on rheumatic pain thrice daily so as to cure.
- ▶One cup bitter guard juice mixed with sugar is taken twice a day for few days which cure blood oozing piles.
- ▶Seed paste is taken with water twice a day for three days which causes abortion with vigorous pain.

**Moringa oleifera** Linn., Sahjan (Moringaceae).

- ▶ Fresh leaves are made into paste and applied on forehead to cure headache.
- ▶ Fresh leaves and five black pepper (**Piper nigrum** Linn., Piperaceae) are made into paste. It is applied on forehead to cure headache.
- ▶ Paste of root is applied on boils for suppression.

**Mucuna pruriens** (Linn.) DC., Velvet bean, Kwanch (Fabaceae).

- ▶ Paste of leaves is applied on forehead cures headache.
- ▶ One teaspoonful of seed powder is taken with fresh water or honey to cure all type of headache including migraine as well as chronic headache.
- ▶ Dried leaves are smoked which produces soothing effect on headache.

**Murraya koenigii** Linn., Sprengel, Curry plant, Meethi neem, (Rutaceae).

- Eating 5 leaves of Curry plant every day in morning with empty stomach lowers cholesterol and controls diabetes.
- ▶ Paste of bark and root are applied on skin eruptions as well as on bites of poisonous animals.

**Musa paradisiaca** Linn., Kela, Banana (Musaceae).

- ▶ Two ripe fruit are eaten daily for ten days with a glass of luke warm milk. It is anti-stress cures headache due to tension and stress.

**Nardostachys jatamansi** (D.Don.) DC., Jatamansi, Spikenard (Valerianaceae).

- ▶ Rhizome is crushed and boiled in 500 ml. of water. Head and pot is covered by towel and its steam is inhaled. The infusion produces cooling sensation on headache.

**Naravelia zeylanica** (Linn.) DC., Vatanashini (Ranunculaceae).

- ▶ Paste of leaves or whole plant applied on forehead cures headache.
- ▶ Paste of whole plant is applied on painful & inflamed joints and muscles which cures pain.

**Nerium indicum** Mill., Kaner (Apiaceae).

- ▶ Smelling of dried leaf powder is beneficial in headache.
- ▶ Flower paste is applied on head as well as forehead so as to cure headache.
- ▶ Paste of root is applied on snake and scorpion bite as an antidote.

**Nigella sativa** Linn., Kalauji, Mangrail (Ranunculaceae).

►Seeds are roasted and tied in a cotton cloth. It is smelled continuously after short duration. After few minutes headache due to cold will be disappear.

**Nyctanthes arbor-tristis** Linn., Harshingar, (Oleaceae);

►Leaves are made into paste and applied on forehead cures headache.

►Three tender leaves are chewed and engulfed with water produces relief in headache.

►Four leaves are made into paste and taken orally with water twice daily for few days which cures joint as well as muscle pain and also useful in rheumatism.

**Ocimum sanctum** Linn., Holy basil, Tulsi (Lamiaceae).

►Ten leaves of tulsi and one teaspoonful of dalcini (**Cinnamomum zeylanicum** Linn., Lauraceae) are made into paste with the help of water. Paste is applied on forehead twice a day cures headache.

►Inhaling the steam of hot water boiled with ten fresh tulsi leaves and half teaspoonful of fresh or dried ginger (**Zingiber officinale** Roscoe., Zingiberaceae) daily for a week cures headache caused due to sinus.

►Two drops of oil extracted from plant is put into nostril cures headache.

►Two gm. powder of seeds and leaf is taken with a teaspoonful of honey cures headache due to cold.

►Fresh whole plant is dried and powdered. Five gm powder is taken twice daily with luke warm milk which cures joint and muscles pain as well as rheumatic pain.

**Origanum vulgare** Linn., Marua (Lamiaceae).

►Two or three tender shoots having leaves and flower are boiled in five hundred ml. water. Its infusion is taken through steaming twice a day to cure headache.

►Paste of fresh leaves and flower is applied on forehead to cure headache.

►Essential oil obtained by plants is applied on forehead cures headache.

**Oxalis corniculata** Linn., Khattibuti (Oxalidaceae).

►Leaves are made into paste and equal amount of onion juice (**Allium cepa** Linn., Liliaceae) is mixed to it. It is applied on forehead as well as temple of head cures headache.

**Pandanus odoratissimus** Linn. (Nom. illeg.), Kevara (Pandanaceae).

- ▶Oil is applied on forehead to cure headache.
- ▶Massage of oil on joints and muscles cures the pain.

**Pepromia pellucida** Kunth., Shiny Bush (Piperaceae).

- ▶Whole plant is cooked and eaten which produces relief.
- ▶Paste of leaves or whole plant is applied on forehead cures headache.
- ▶Few leaves are chewed and engulfed with water is beneficial in pain
- ▶Whole plant is cooked and eaten which produces relief in pain.
- ▶Decoction of whole plant is taken orally is beneficial for joint, muscles and rheumatic pain.

**Phyllanthus fraternus** Webster., Bhuiaanwala (Phyllanthaceae).

- ▶Paste of leaves is applied on eczema and itching.
- ▶Ten gm powder of whole plant is taken daily which is useful in diabetes.
- ▶Whole plant paste is applied on the swellings of breast.
- ▶Ten ml decoction of fifty gm whole plant is taken twice daily which is useful in dropsy.
- ▶Twenty gm leaves are boiled in two hundred ml. of water. Twenty ml. is taken continuously on very short duration which cures stomach pain.

**Physalis minima** Linn., Rasbhari (Solanaceae).

- Twenty ml juice of fresh leaves is taken daily for a week which is useful in urinary ailments.
- Two drops of fresh leaf juice is put in ear thrice daily which cures ear ache.

**Piper betle** Linn., Paan (Piperaceae).

- ▶Paste of fresh leaves applied on forehead produces cooling sensation and analgesic effect on headache.
- ▶Fresh leaves are warmed and applied with mustard oil (**Brassica campestris** Linn., Brassicaceae) and are tied on painful joints.

**Plantago ovata** Linn., Psilium husk, Isabgol (Plantaginaceae);

- ▶Poultice of seed husk tied on joints to cure pain.

**Plumbago zeylanica** Linn., Cheet, Chitra (Plumbaginaceae),

- ▶Leaves are made into paste and paste is applied after scrubbing the skin twice daily the boils will occur and within few days the leucoderma of the skin will cure.
- ▶A small piece of root (3cm.) is made into paste along with turmeric powder (**Curcuma longa** Linn. Zingiberaceae) and given early in the morning with empty stomach twice a day for two days which causes abortion.

**Psidium guajava** Linn., Amrud (Myrtaceae).

- ▶Raw fruit is rubbed on a stone, the paste obtained is applied on forehead as well as on head which cures hemi-cranial headache.
- ▶Tender leaves are made into paste and applied on joint or muscles so as to cure the pain.
- ▶Fresh leaves are warmed and tied on joints produces relief in pain.
- ▶Soft leaves are chewed with small amount of khair (**Acacia catechu** Linn. Mimosaceae). It is beneficial for mouth ulcer.
- ▶Decoction of tender leaves is beneficial for kidney and mental disorders.▶One raw fruit is cut into pieces and boiled in water. It is eaten twice a day which cures diarrhea in children.

**Pyrus malus** Linn., Seb, Apple (Rosaceae).

- ▶One or two apple fruit is peeled and chooped and small amount of common salt is sprinkled on it. It is taken with empty stomach followed with luke warm milk. If taken continuously for fifteen days cures chronic headache.

**Punica granatum** Linn., Anar, Pomegranate (Lythraceae).

- ▶Paste of fresh bark is applied on forehead cures headache.
- ▶Decoction of twenty gm fresh flower is taken orally with sufficient amount of honey. It reduces stress and helps to cure headache.
- ▶Twenty gm. fresh leaves are boiled in four hundred ml. water and boiled when only hundred ml remains it is mixed into warm milk and taken orally. It reduces mental tiredness and useful in insomnia.
- ▶Bark is made into paste with the help of water and applied on forehead which cures headache and migraine.
- ▶Twenty ml. juice of fruit is taken twice daily for few days. It is beneficial in cholera.
- ▶Paste of fresh leaves is applied on palm of hand and sole of feet to cure inflammation.

**Rauvolfia serpentina** (Linn.) Benth. ex. Kurz., Sarpgandha (Apocynaceae)

- ▶ Half teaspoonful of root powder is taken twice a day for hypertension.
- ▶ One gm. powder of root is taken with a glass of milk at bed time in insomnia.
- ▶ One gm powder is taken thrice daily with milk. It should be continued till a complete cure is obtained in hysteria.
- ▶ One gm powder of root is taken with water to cure the itching of urticaria allergy.
- ▶ Two gm powder of root is given orally as well as paste of root and leaf is applied on snake bite. It is a potent antidote for bites of reptiles.
- ▶ Decoction and extract of root is employed to increase uterine contractions for expulsion of foetus.
- ▶ Juice of leaves is instilled in eyes as a remedy for opacities of cornea.

**Ricinus communis** Linn., Castor, Arand, (Euphorbiaceae).

- ▶ Equal amount of Castor and mehandi leaves (**Lawsonia inermis** Linn., Lytheraceae) are made into paste. It is applied on joints which cures joint pain.
- ▶ Three clove of Garlic (**Allium sativum** Linn., Liliaceae) is fried in Castor oil. When garlic cloves become black oil is filtered. Massage of this oil cures joint pain.
- ▶ Castor leave is taken and ghee or Castor oil is applied on smooth side of leaf. It is warmed and tied on joint pain twice daily which cures joint pain.
- ▶ Three or four tender leaves are chewed or made into paste and taken orally with the help of water which is useful in jaundice.
- ▶ Root paste is given in the morning for three days for abortion.

**Rosmarinus officinalis** Linn., Rosmarry (Lamiaceae).

- ▶ Five leaves are boiled in a cup of water and taken orally like tea produces soothing effect on headache.
- ▶ Oil extracted from plant is applied on forehead as well as on temple of head cures headache.
- ▶ Flowers are boiled in a 500 ml. of water and its vapour is inhaled by steaming process which produces relief in headache.

**Rosa indica** Linn., Gulab, Rose (Rosaceae).

- ▶ Paste of fresh flower is applied on forehead which cures headache.

- ▶Smelling the flower create cooling sensation and cures headache.

**Saccharum munja** Linn., Munj (Poaceae)

- ▶Fresh and soft inflorescence is made into paste and taken orally with water which is beneficial for cholera.

**Salacia reticulata** Wight. Saptrangi (Celastraceae).

- ▶Extract of fresh leaves is taken after taking high carbohydrate meal controls blood sugar.

**Salvia sclarea** Linn., Marwa, Calary sage (Lamiaceae).

- ▶Three drops extract of fresh leaves put into both nostrils which produces relief in headache.
- ▶Paste of fresh leaves is applied on forehead cures headache.

**Santalum album** Linn., Sandalwood, Chandan (Santalaceae).

- ▶Wood is rubbed on stone with the help of water. The paste is applied on forehead which cures headache.

**Sapindus mukorossi** Gaertn., Reetha (Sapindaceae).

- ▶Five or six seeds are made into paste with the help of water and applied on forehead cures headache.

**Sesbania grandiflora** (Linn.) Poir., Agastya (Fabaceae).

- ▶Two drop extract of fresh flower or leaves is put into both nostrils twice a day cures headache.
- ▶Root of Agastya and Dhatura are taken in equal amount and made into paste. Poultice of this paste is tied on swellings of joints and muscles which cure pain as well as reduces swelling.

**Seasmum indicum** Linn., Saesmeae, Till (Pedaliaceae).

- ▶Hundred gm. oil of sesame is mixed with ten gm. of camphor (**Cinnamomum camphora** (Linn.) J. Presl. Kapoor, Lauraceae) and ten ml of sandalwood oil (**Santalum album** Linn. Chandan, Santalaceae). Daily massage of oil on the forehead cures headache.
- ▶Seeds soaked in milk are made into paste and applied on forehead cures headache.

▶Hundred ml. Sesame oil is taken and mixed with 10 gm. of camphor (**Cinnamomum camphora** (Linn.) J. Presl., Lauraceae). Daily massage of oil on the joints and muscles cures pain.

**Sida cardifolia** Linn., Bariyar (Malvaceae);

▶Poultice of leaves is tied on joint and cool water is slightly poured over it continuously which cures joint pain.

▶Leaves are taken and castor oil (**Ricinus communis** Linn., Euphorbiaceae) applied on it. These leaves are tied on joints to cure pain

▶Decoction of five gm root is taken twice daily to cure joint and muscle pain.

▶Paste of fresh leaves is applied on cuts, wounds and injuries to heal it as well as cures.

▶Ten ml decoction of whole plant is taken orally in urinary ailments as well as in piles. It is taken twice daily for few days.

▶Leaf decoction mixed with black pepper (**Piper nigrum** Linn., Piperaceae) is given orally to induce abortion.

▶Three gm powder of root is mixed with sufficient amount of sugarcandy and it is taken with a cup of cow milk. It is taken for a week to cure leucorrhea.

**Solanum surattense** Burm. f., Bhatkatiya (Solanaceae).

▶Juice of fresh fruit is applied on forehead cures headache.

▶One gm powder of flower is mixed with honey. Licking and eating of the paste remove all type of cough in children. It is taken daily for five days.

**Solanum nigrum** Linn., Makoi (Solanaceae).

▶Fresh leaves are made into paste with two cloves (**Syzygium aromaticum** (Linn.) Merril & Perry, Myrtaceae) is applied on forehead to cure headache.

▶Whole plant is boiled in water and its decoction is prepared. It is taken orally twice a day for three days for abortion.

**Sphaeranthus indicus** Linn., Mundi, Shrawani (Asteraceae).

▶One teaspoonful juice of flower and fruit is taken and four grinded black pepper (**Piper nigrum** Linn., Piperaceae) are added to it. It is taken twice for five days with the help of water cures chronic headache as well as migraine.



- ▶ Fresh leaves and flowers are made into paste and applied on dog bite.
- ▶ One gm powder is taken twice daily with water kills intestinal worms.
- ▶ Three gm. powder of whole plant is taken with cow milk which reduces the gas and acidity.

**Swertia chirayata** (Roxb. ex. Flem ) Karsten., Bitter stick, Chirayita (Genitanaceae).

- ▶ Decoction of whole plant is taken orally which is useful for headache caused by cold and fever.

**Syzygium cuminii** (Linn.) Skeels. (Syn. **S. jambulanum** DC., **Eugenia jambulana** Lam.) Jamun, Jambul (Myrtaceae).

- ▶ Five gm. powder of seeds is taken with water twice daily which controls diabetes.
- ▶ Ten ml. juice of fresh leaves is taken daily with empty stomach which controls diabetes.
- ▶ Two leaves chewed daily which cures gingivitis as well as controls diabetes and blood pressure.

**Tagets erecta** Linn. Marigold, Genda (Asteraceae).

- ▶ Fresh leaves are made into paste and its extract is taken orally with sufficient amount of honey. It is beneficial in diabetes.
- ▶ Two-two drops juice of fresh leaves is put in the ear to cure pain.
- ▶ Juice of leaves is mixed with Vaseline and massaged on the cracks of heels so as to cure.
- ▶ Paste of leaves applied on injury, wounds or boils so as to cure.
- ▶ Juice of whole plant is applied on swellings and sprain which produces relief.
- ▶ Seeds are powdered with equal amount of candy sugar (mishree). Ten gm. of powder is taken twice with water which is useful in cough and asthma.

**Tamarindus indica** Linn., Imli, Tamarindus (Fabaceae).

- ▶ Poultice of fresh leaves or seeds tied on wounds twice daily till the cure.
- ▶ Decoction of ten gm fresh leaves is taken orally which is beneficial in diarrhea.
- ▶ Paste of seed is mixed with lemon juice and applied on eczema and dermatitis.
- ▶ Leaves are made into paste and warmed. Luke warm paste is applied on sprain injury.
- ▶ Poultice of leaves is tied on painful joints and their swellings.

►Seeds are made into paste with the help of water and applied on scorpion sting. It reduces poisoning in very short duration.

**Tectona grandis** Linn., Sagaun, Teak (Verbinaceae).

►Wood is rubbed on stone with the help of water. The paste is applied on forehead to cure headache.

**Thevetia peruviana** (Pers.) Schum., Kaner (Apocynaceae).

►Flowers are made into paste with small amount of amla powder (**Emblica officinalis** Garten., Euphorbiaceae). Paste applied on forehead cures headache.

►Yellow leaves powdered and tied in a cotton cloth. It is smelled slightly. Within few minutes person will sneeze and his headache disappears.

►Fresh leaves are made into paste and mixed with mustard oil (**Brassica compestris** Linn. Brassicaceae) it is warmed and applied on joint.

►Leaves are made into paste and mixed with sesame oil (**Seasmum indicum** Linn., Pedaliaceae) and applied on skin which cures itching and other skin troubles.

►Paste of bark is applied on skin which is useful in leprosy.

►Fresh leaves are boiled in water. Bath of this water is useful in leprosy.

**Terminalia bellerica** (Goertn.) Roxb., Bahera, Babhitki (Combretaceae).

►Kernels are made into paste and applied on forehead to cure the inflammation of headache.

►Kernel of plant is made into paste and applied on joint and muscles to cure the pain.

**Terminalia chebula** Linn., Hareda (Combretaceae).

►Paste of seeds is applied on forehead cures headache.

**Trachyspermum ammi** Spragu., (syn. **Carum copticum** Linn.) Ajwain, Caraway (Apiaceae).

►Two hundred gm. seeds are roasted and tied in a cotton cloth. It is smelled. After few minutes headache will be disappear with sneezing.

**Vanda tasselera** (Roxb.) Hook ex. & G. Don, Hadjor, Turwari (Orchidaceae).

►Aerial roots are made into paste. It is applied on forehead to cure headache.

►Aerial roots are made into paste and applied on inflamed joints and muscles so as to cure.

**Vitex nigundo** Linn., Meudi (Verbinaceae).

- ▶ Tender leaves are made into paste and applied on forehead cures headache.
- ▶ Leaves are warmed and tied on painful joints and muscles so as to cure.
- ▶ Leaves are fried in sesame oil (**Seasmum indicum** Linn. Pedaliaceae) when leaves become black it is filtered. Daily massage of this oil cures joints muscles pain.

**Withania somnifera** Dunal., Ashwagandha (Solanaceae).

- ▶ Paste of root is applied on forehead as well as five gm. powder of root is mixed with a teaspoonful of honey and taken orally cures headache.
- ▶ Ten or fifteen leaf buds or soft leaves are boiled in two hundred ml of water. It is filtered and taken daily for five days to cure joint and muscles pain.
- ▶ Three-five gm powder of root mixed with pure milk fat (ghee) and two gm of sugar. It is taken daily for few days cure joints as well as rheumatic pain.
- ▶ Whole plant is made into paste and warmed. Paste is applied on joints as well as muscles to cure pain.
- ▶ Twenty gm powder of root is taken with water twice a day for two days to induce abortion.
- ▶ One cup juice of leaves is given twice a day to stop bleeding from uterus after delivery.

**Zingiber officinale** Roscoe., Ginger, Adarak (Zingiberaceae).

- ▶ Dry or fresh ginger and castor root (**Ricinus communis** Linn., Euphorbiaceae) is made into paste and applied on forehead cures headache.
- ▶ Five gm ginger is crushed and boiled in a cup of water and is taken orally. It is beneficial for headache as well as migraine.
- ▶ Dried ginger is fried in butter or ghee (Fat) and its poultice is prepared. It is smelled for thirty minutes cures headache due to cough and cold.
- ▶ Two hundred fifty gm extract of rhizome is mixed with four hundred ml of sesame oil (**Seasmum indicum** Linn. Pedaliaceae). It is boiled on fire and when only oil remained is taken and cooled. Daily massage of this oil on joint and muscles as well as other pain of body cures pain.

- |  |              |
|--|--------------|
| ▶ <b>Zingiber officinale</b> Roscoe., Ginger, Adarak (Zingiberaceae) | 5 gm rhizome |
| <b>Amomum subulatum</b> Linn., Elayachi (Zingiberaceae)              | 1 gm seed    |
| <b>Ocimum sanctum</b> Linn., Tulsi (Lamiaceae)                       | 5 leaves     |

<b>Piper nigrum</b> Linn., Black Pepper (Piperaceae)	5 seeds
<b>Cinnamomum zeylanicum</b> Blume., Dalchini (Lauraceae)	2 gm. bark
<b>Syzygium aromaticum</b> (Linn) Merr. & L. M. Perry (Myrtaceae)	2 clove

All the ingredients are boiled in a glass of water and sufficient amount of sugar or sugar candy is added to it and its tea is prepared. It is filtered and taken luke warm which cures any type headache viz. stress, cough, cold as well as sinus. If taken for a week cures chronic headache as well as migraine. It may be taken with a teaspoonful of honey instead of sugar but if taken with honey it should not be hot, bit warm is taken.

## RESULTS

The perusal of the table shows that there are one hundred forty nine plant species belonging to hundred thirty genera representing sixty one families used for the treatment of various ailments. In this study most dominant families are Lamiaceae represented by seven species where as Asteraceae, Apocynaceae, Apiaceae, Caesalpiniaceae and Fabaceae represented by five species each; Brassicaceae, Liliaceae, Malvaceae, Rutaceae, Solanaceae and Zingiberaceae represented by four species each; Euphorbiaceae, Poaceae, Lauraceae, Moraceae, Myrtaceae and Verbenaceae represented by three species each; Liliaceae, Solanaceae and Zingiberaceae represented by four species each; Apocynaceae, Myrtaceae, Poaceae, Piperaceae, Rutaceae, Verbenaceae, with three species each; Asclepiadaceae, Acanthaceae, Amaranthaceae, Combretaceae, Convolvulaceae, Cucurbitaceae, Lythraceae, Malvaceae and Meliaceae represented by two species each; Achyranthaceae, Acoraceae, Anacardiaceae, Annonaceae, Cannabinaceae, Carricaceae, Capparidaceae, Chenopodiaceae, Crassulaceae, Cuscutaceae, Genitanaceae, Mimosaceae, Moringaceae, Musaceae, Nyctanginaceae, Orchidaceae, Oleaceae, Oxalidaceae, Papaveraceae, Pedaliaceae, Piperaceae, Phyllanthaceae, Plumbaginaceae, Rannunculaceae and Sapotaceae each represented by single plant species being used for the treatment of various twenty five ailments. Most of the medicinal plants were used singly but somewhere for better result used with combination of other plants. The herbal therapy used for administration of medicine also varies.

## DISCUSSION

The study indicated that, the study area is rich in plants having ethno-medicinal properties that may treat various diseases. Through modern medical system is well designed to treat the diseases but the local people dependent on traditional medicine because of their deep rooted

tradition and belief in their traditional culture. The knowledge of traditional healthcare is limited to traditional healers, who are living in rural areas. Hence there is a need to preserve the traditional knowledge and its proper documentation before it is lost. The study also highlights the need for further investigation on biochemical and pharmaceutical aspects of this traditional system of medicine because one of the major problems with the herbal formulation is that the active ingredients are not well defined. Therefore, it is important to know the active component and their molecular interaction which will help to analyze therapeutic efficacy of the medicine. It is also important to note here that the rich diversity of study area and its natural beauty is God's most precious gift that's why needed to be conserved for human welfare and for existence of life on earth.

## CONCLUSION

There is no any plant which has no medicinal value. Every plant existing in this universe has its own medicinal value. Plants are being used as medicine since Vedic period because plants constitute specific chemicals which are used for the production of medicines. The study shows that there is wide scope for further scientific study. Ethno-medicinal data may provide a base to search the new compounds related to phyto-chemistry and pharmacology. It is also important to note here that the floristic diversity and natural beauty of the study area is God's most precious gift so attention should also be made on sustainable exploitation, cultivation and conservation of these medicinal plants for human welfare because we know that "Nature Protect if She is Protected".

## ACKNOWLEDGEMENT

The authors are grateful to forest authority for permission, local healers, poor but generous villagers, as well as other informants who very kindly provided the relevant information regarding the plants their parts used and the method of preparation of the medicine as well as its mode of administration.

## REFERENCES

1. Ambasta SP, Ram Chandran K, Kashyappa K, Chand R. The Useful Plants of India. Council of Scientific and Industrial Research, New Delhi India. 1992, pages: 918.  
<http://scialert.net/fulltext/?doi=rjmp2012.286.299>
2. Binu S. Medicinal Plants used for treating body pain by the tribals in Pathanamthitta district, Kerla, India. *Indian Journal of Traditional knowledge* 10 (3) 2011, pp. 547-549.  
[http://nopr.niscair.res.in/bitstream/123456789/12037/IJTK%2010\(3\)%20547-549pdf](http://nopr.niscair.res.in/bitstream/123456789/12037/IJTK%2010(3)%20547-549pdf)

3. Duthie J F, Flora of Upper Gangetic plain and of the adjacent Shivalic and Sub Himalayan Tract Botanical Survey of India (Calcutta) Reprinted 1994.  
<http://www.niscairres.in/bitstream/123456789/394/1/IJTK%20191-195.pdf>
4. Hooker J D. Flora of British India 7 vol, Reev and Co. Ltd. England (1872-1897).  
<http://www.nepjol.info/index.php/TUJ/article/download/1/25/251>
5. Jain SK, Rao RR. A Handbook of Field and herbarium method, Today and Tomorrow Printers and Publishers, New Delhi 1967.  
<http://www.ethnobiomed.com/content/2/1/14>
6. Jain SK. Dictionary of Indian Folk Medicine and Ethnobotany. Deep publications, New Delhi 1991. <http://scialert.net/abstract/?doi=rjmp.2007.144.148>
7. Kirtikar KR, Basu BD. Indian Medicinal Plants.Vol.4, Lalit Mohan Publications Allahabad, India.1991. <http://scialert.net/fulltext/?doi=ijp.2011.333.339>
8. Mar. C, Bent S, An evidence –based review of the 10 most commonly used herbs. *Westen Journal of Medicine* 1999; 171 (3).168-171.  
<http://www.ncbi.nlm.nih.gov/pmc/article/PMC1305802/>
9. Essential oil- Wikipedia, the free encyclopedia.  
[http://en.m.wikipedia.org/wiki/Essential\\_oil](http://en.m.wikipedia.org/wiki/Essential_oil)
10. Headache- Wikipedia, the free encyclopedia.  
<http://en.m.wikipedia.org/wiki/Headache>