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Traditional herbal medicinal plants of Khyber Pakhtoonkhwa Pakistan using for analgesic, anti-inflammatory, anti-cancer, anti-ulcer and antidiabetic activities

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Abstract

The present communication constitutes an updated review on plants with analgesic, anti-inflammatory, anti-cancer, anti-ulcer and antidiabetic activities with special emphasis on those plants found in different parts of Khyber Pakhtoon Khwa Pakistan. This article will be helpful to the common people for their primary healthcare and the researchers for further isolation and characterization of the active chemical constituents responsible for analgesic anti-inflammatory, anti-cancer, anti-ulcer and antidiabetic potential. In the last few years there has been an exponential growth in the field of herbal medicine and these drugs are gaining popularity both in developing and developed countries because of their natural origin and less side effects. Many traditional medicines in use are derived from medicinal plants, minerals and organic matter. The World Health Organization (WHO) has listed 21,000 plants, which are used for medicinal purposes around the world. These work help the people to use the plants is a potential remedies.

Keywords: Analgesic, anti-inflammatory, anti-cancer, anti-ulcer and antidiabetic activities Khyber Pakhtoon Khwa, Pakistan

Introduction

Inflammation is the complex biological response of vascular tissues to harmful stimuli including pathogens, irritants, or damaged cells. It is a protective attempt by the organism to remove the injurious stimuli as well as initiate the healing process for the tissue (Singh *et al.*, 2008) [104]. The process of inflammation is necessary in healing of wounds. Inflammation however, if runs unchecked, lead to onset of diseases like vasomotor rhinorrhoea, rheumatoid arthritis and atherosclerosis (Janaranjani *et al.*, 2014). Acute inflammation is characterized by classical signs edema, erythema, pain, heat, and above all, loss of function. The classical signs are triggered by the infiltration of the tissues by serum and white blood corpuscles (leucocytes). Chronic inflammation results in a progressive shift in type of cells, present at site of inflammation. It is characterized by simultaneous destruction and healing of the injured tissue from incidence of inflammation. Fever or pyretic is defined as the elevation of core body temperature above normal; in normal adults, the average oral temperature is 36.98C (98.58F). In oncology practice, a single temperature of more than 38.3 °C (101°F) or three readings (at least 1 hour apart) of more than 38 °C (100.4 °F) are considered significant. Lower temperature elevations in the very young or old and in patients receiving steroids or other immune suppressants are considered abnormal (Mackowiak, 1997). Pain may be define “unpleasant sensory and emotional experience that is caused by actual or potential tissue damage”. The emotional component differs from one person to the other and in the same individual from time to time and it can be classified in several ways, but in therapeutic application into; nociceptive and neuropathic (Koech *et al.*, 2017) [47]. In the body, Sensory nerve endings are generally found in every part of the body such as the blood vessels, internal organs, muscles, joints, and the skin (Rouse *et al.*, 2008). Peptic ulcer diseases encompassing gastric and duodenal ulcer is the most prevalent gastrointestinal disorder. The pathophysiology of peptic ulcer diseases involves an imbalance between offensive (acid, pepsin, and H. pylori) and defensive factors (Mucin, Prostaglandin, Bicarbonate, Nitric oxide and growth factors).

Indian Medicinal plants and their derivatives have been a valuable source of therapeutic agents to treat various disorders including Antiulcer diseases (Manonmani *et al.*, 1995) [55]. Cancer is an abnormal malignant growth of body tissue or cell. A cancerous growth is called a malignant tumor or malignancy. A non-cancerous growth is called benign tumor. The process of cancer metastasis is consisting of series of sequential interrelated steps, each of which is rate limiting. Plants with loaded with chemical with chemo protective activities of some of them are undergoing clinical trial. Inhibition of angiogenesis is a novel process of cancer therapy. The selected and careful use of this plant may

definitely in anti-angiogenic therapy and thus in cancer management (Gupta *et al.*, 2004) [29]. Diabetes mellitus is a clinical syndrome characterized by inappropriate hyperglycemia caused by a relative or absolute deficiency of insulin or by a resistance to the action of insulin at the cellular level. Plant materials which are being used as traditional medicine for the treatment of diabetes are considered one of the good sources for a new drug or a lead to make a new drug. Plant extract or different folk plant preparations are being prescribed by the traditional practitioners and also accepted by the users for diabetes like for any other diseases in many countries.

Table 1: List of plants which have analgesic activity

| S. No | Botanical Name | Family | Parts used | Activities |
|-------|----------------------------------|------------------|--------------|------------|
| 1 | <i>Manilkara zapota</i> | Sapotaceae | Leaves | Analgesic |
| 2 | <i>Scoparia dulcis</i> L. | Scrophulariaceae | whole herb | Analgesic |
| 3 | <i>Ficus racemosa</i> | Moraceae | Fruits | Analgesic |
| 4 | <i>Allium stracheyi</i> | Liliaceae | Leaves | Analgesic |
| 5 | <i>Murraya paniculata</i> | Rutaceae | Bark | Analgesic |
| 6 | <i>Bauhinia racemosa</i> | Caesalpiniaceae | Stem bark | Analgesic |
| 7 | <i>Clerodendrum phlomidis</i> | Verbanaceae | Stem bark | Analgesic |
| 8 | <i>Sida acuta</i> | Malvaceae | whole plant | Analgesic |
| 9 | <i>Stylosanthes fruticosa</i> | Papilionaceae | whole plant | Analgesic |
| 10 | <i>Toona celiata</i> | Meliaceae | Heart wood | Analgesic |
| 11 | <i>Baugainvillea spectabilis</i> | Nyctaginaceae | Leaves | Analgesic |
| 12 | <i>Ficus glomerata</i> | Moraceae | Bark | Analgesic |
| 13 | <i>Polyalthia longifolia</i> | Annonaceae | Leaves | Analgesic |
| 14 | <i>Tribulus terrestris</i> | Zygophyllaceae | Aerial | Analgesic |
| 15 | <i>Pimpinella anisum</i> | Umbellifera | Seeds | Analgesic |
| 16 | <i>Peganum harmalla</i> | Zygophyllaceae | Whole plant | Analgesic |
| 17 | <i>Myrtus communis</i> | Myrtaceae | Leaves | Analgesic |
| 18 | <i>Withania somnifera</i> | Solanaceae | Leaves | Analgesic |
| 19 | <i>Sinapis arvensis</i> | Solanaceae | Aerial | Analgesic |
| 20 | <i>Asphodeline lutea</i> | Asphodelaceae | Aerial | Analgesic |
| 21 | <i>Murraya paniculata</i> | Rutaceae | Bark | Analgesic |
| 22 | <i>Tridax procumbens</i> | Compositae | Leaves | Analgesic |
| 23 | <i>Hibiscus rosa sinensis</i> | Malvaceae | Leaves | Analgesic |
| 24 | <i>Pergularia daemia</i> | Asclepiadaceae | Roots | Analgesic |
| 25 | <i>Bryonia laciniata</i> | Cucurbitaceae | Whole plant | Analgesic |
| 26 | <i>Plumbago zeylanica</i> | Plumbaginaceae | Roots | Analgesic |
| 27 | <i>Clerodendrum phlomidis</i> | Verbanaceae | Aerial parts | Analgesic |
| 28 | <i>Ficus bengalensis</i> | Moraceae | Leaves | Analgesic |
| 29 | <i>Manihot esculenta</i> | Euphorbiaceae | Whole plant | Analgesic |
| 30 | <i>Sphaeranthus indicus</i> | Compositae | Whole plant | Analgesic |
| 31 | <i>Calotropis Procera</i> | Asclepiadaceae | Latax | Analgesic |
| 32 | <i>Xanthium indicum</i> | Compositae | leaves | Analgesic |
| 33 | <i>Amaranthus Viridis</i> | Amaranthaceae | Whole plant | Analgesic |
| 34 | <i>Marsilea trifolia</i> | Marsilea-ceae | Fresh Leaves | Analgesic |
| 35 | <i>Nelumbo nucifera</i> | Nelumbonaceae | seeds | Analgesic |
| 36 | <i>Saraca indica</i> | Leguminosae | Leaves | Analgesic |
| 37 | <i>Baliospermum montanum</i> | Euphorbiaceae | Roots | Analgesic |
| 38 | <i>Kyllinga monocephala</i> | Cyperacea | Leaves | Analgesic |
| 39 | <i>Carpolobia lutea</i> | Polygalaceae | Roots | Analgesic |

Table 3: List of plants which having Anti-inflammatory activity

| S. No | Botanical Name | Family | Parts used | Activities |
|-------|------------------------------|----------------|--------------|-------------------|
| 1 | <i>Nothospondias Studtii</i> | Simaroubaceae | Leaves | Anti-inflammatory |
| 2 | <i>Randia dumetornm</i> | Rubiaceae | Seeds | Anti-inflammatory |
| 3 | <i>Asystasia dalzelliana</i> | Acanthaceae | Whole plant | Anti-inflammatory |
| 4 | <i>Mangifera indica</i> | Anarcardiaceae | Leaves | Anti-inflammatory |
| 5 | <i>Mitragyna parvifolia</i> | Rubiaceae | Fruits | Anti-inflammatory |
| 6 | <i>Solanum trilobatum</i> | Solanaceae | root | Anti-inflammatory |
| 7 | <i>Rubia cordifolia</i> | Rubiaceae | root | Anti-inflammatory |
| 8 | <i>Thesium chinense</i> | Santalaceae | Leaves | Anti-inflammatory |
| 9 | <i>Cissampelos pareira</i> | Menispermaceae | Aerial parts | Anti-inflammatory |

| | | | | |
|----|-----------------------------------|------------------|-------------|-------------------|
| 10 | <i>Cissus quadrangularis</i> | Vitaceae | whole plant | Anti-inflammatory |
| 11 | <i>Brunfelsia uniflora</i> | Solanaceae | Leaves | Anti-inflammatory |
| 12 | <i>Dorstonia brasiliensis</i> | Moraceae | Root | Anti-inflammatory |
| 13 | <i>Apuleia Leiocarpa</i> | Legceae | Bark | Anti-inflammatory |
| 14 | <i>Marsypianthes chanaedryis</i> | Lamiaceae | Leaves | Anti-inflammatory |
| 15 | <i>Casearia sylvestris</i> | Flacurteaceae | Leaves | Anti-inflammatory |
| 16 | <i>Trianosperma tayaya</i> | Curcubitaceae | Root | Anti-inflammatory |
| 17 | <i>Mikania glomerata</i> | Asteraceae | Leaves | Anti-inflammatory |
| 18 | <i>Elephantopus scaber</i> | Asteraceae | Leaves | Anti-inflammatory |
| 19 | <i>Cynara scolymus</i> | Asteraceae | Leaves | Anti-inflammatory |
| 20 | <i>Chococca brachiata</i> | Rubiaceae | Root | Anti-inflammatory |
| 21 | <i>Eucalyptus citriodora</i> | Myrtaceae | esstial oil | Anti-inflammatory |
| 22 | <i>Hedyotis puberula</i> | Rubiaceae | whole plant | Anti-inflammatory |
| 23 | <i>Tanacetum artemisioides</i> | Asteraceae | whole plant | Anti-inflammatory |
| 24 | <i>Kaempferia galangal</i> | Zingiberaceae | rhizome | Anti-inflammatory |
| 25 | <i>Cissus rependa</i> | Vitaceae | Root,Stem | Anti-inflammatory |
| 26 | <i>Cassia sophera</i> | Caesalpiniaceae | leaves | Anti-inflammatory |
| 27 | <i>Oxalis corniculata</i> | Oxalidaceae | whole plant | Anti-inflammatory |
| 28 | <i>Tridex procumbens</i> | Asteraceae | leaves | Anti-inflammatory |
| 29 | <i>Holarrhena antidysenterica</i> | Apocynaceae | Bark | Anti-inflammatory |
| 30 | <i>Celosia argentia</i> | Amaranthaceae | Leaves | Anti-inflammatory |
| 31 | <i>Leucas cephalotes</i> | Labiatae | Leaves | Anti-inflammatory |
| 32 | <i>Calotropis gigantea</i> | Asclepiadaeaceae | Leaves | Anti-inflammatory |
| 33 | <i>Pletranthus amboinicus</i> | Lamiaceae | Leaves | Anti-inflammatory |
| 34 | <i>Hibiscus tiliaceus</i> | Malvaceae | Leaves | Anti-inflammatory |
| 35 | <i>Amaranthus spinosus</i> | Amaranthaceae | whole plant | Anti-inflammatory |
| 36 | <i>Sterculia foetida</i> | Sterculiaceae | seeds | Anti-inflammatory |
| 37 | <i>Phyllanthus niruri</i> | Phyllanthaceae | whole plant | Anti-inflammatory |
| 38 | <i>Acacia catechu</i> | Leguminosae | Bark & stem | Anti-inflammatory |
| 39 | <i>Nyctanthes arbor-tristis</i> | Oleaceae | Bark | Anti-inflammatory |
| 40 | <i>Tectona grandis</i> | Vervenaceae | Leaves | Anti-inflammatory |
| 41 | <i>Butea monosperma</i> | Fabaceae | Leaves | Anti-inflammatory |
| 42 | <i>Mitragyna parvifolia</i> | Rubiaceae | fruits | Anti-inflammatory |

Table 3: List of plants which having Antipyretic activity

| S.No | Botanical Name | Family | Parts used | Activities |
|------|-------------------------------|-----------------|----------------|-------------|
| 1 | <i>Ocimum sanctum</i> | Labiatae | Leaves | Antipyretic |
| 2 | <i>Azadirachta indica</i> | Meliaceae | Leaves | Antipyretic |
| 3 | <i>Centella asiatica</i> | Umbellifera | Whole Plant | Antipyretic |
| 4 | <i>Emblica officinalis</i> | Euphorbiaceae | fruits | Antipyretic |
| 5 | <i>Coriandrum sativum</i> | Umbelliferae | Leaves;Seeds | Antipyretic |
| 6 | <i>Asparagus adscendens</i> | Liliaceae | Tuberous roots | Antipyretic |
| 7 | <i>Terminalia belerica</i> | Combretaceae | Fruits | Antipyretic |
| 8 | <i>Cinchona officinalis</i> | Rubiaceae | Bark | Antipyretic |
| 9 | <i>Abelmoschus esculentus</i> | Malvaceae | seeds | Antipyretic |
| 10 | <i>Tamarindus indica</i> | Caesalpiniaceae | fruits | Antipyretic |
| 11 | <i>Santalum album</i> | Santalaceae | Volatile oil | Antipyretic |
| 12 | <i>Trichosanthes dioica</i> | Combretaceae | fruits | Antipyretic |
| 13 | <i>Vitex negundo</i> | Verbenaceae | Roots; Flower | Antipyretic |
| 14 | <i>Aconitum ferox</i> | Ranunculaceae | Dried Roots | Antipyretic |
| 15 | <i>Alstonia scholaris</i> | Apocynaceae | Leaves; Bark | Antipyretic |
| 16 | <i>Cocculus cordifolia</i> | Menispermaceae | Stem; Leaves | Antipyretic |
| 17 | <i>Coscinum fenestratum</i> | Menispermaceae | Stem | Antipyretic |
| 18 | <i>Daemia extensa</i> | Ascepidaceae | Leaves; Roots | Antipyretic |
| 19 | <i>Piper nigrum</i> | Piperaceae | Dried Fruits | Antipyretic |
| 20 | <i>Rubia cordifolia</i> | Rubiaceae | Roots | Antipyretic |
| 21 | <i>Swertia chirata</i> | Gentianaceae | Whole Herb | Antipyretic |
| 22 | <i>Tinospora cardifolia</i> | Menispermaceae | Stem; Root | Antipyretic |
| 23 | <i>Allium sativum</i> | Liliaceae | Bulb; oil | Antipyretic |
| 24 | <i>Cassia occidentalis</i> | Caesalpiniaceae | Leaves;Seeds | Antipyretic |
| 25 | <i>Eclipta erecta</i> | Composita | Roots; Leaves | Antipyretic |
| 26 | <i>Cuscuta reflexa</i> | Convolvulacea | Seeds; Stem | Antipyretic |
| 27 | <i>Achyranthes aspera</i> | Amarantaceae | Seeds;Root | Antipyretic |
| 28 | <i>Anacardium occidentale</i> | Anacardiaceae | Fruit; Seed | Antipyretic |
| 29 | <i>Cannibis sativa</i> | Cannabaceae | Leaves | Antipyretic |
| 30 | <i>Lantana involucrate</i> | Verbenaceae | Whole Herb | Antipyretic |
| 31 | <i>Momordica charantia</i> | Cucurbitaceae | Fruit; Leaves | Antipyretic |

| | | | | |
|----|----------------------------|--------------|---------------|-------------|
| 32 | <i>Bambusa vulgaris</i> | Graminae | Roots; Leaves | Antipyretic |
| 33 | <i>Eucalyptus globules</i> | Myrtaceae | Dried leaves | Antipyretic |
| 34 | <i>Piper betel</i> | Piperaceae | Leaves | Antipyretic |
| 35 | <i>Tecoma stans</i> | Bognoniaceae | Wood; Oil | Antipyretic |

Table 4; List of plants which having Anti-ulcer activity

| S. No | Botanical Name | Family | Parts used | Activities |
|-------|--------------------------------|------------------|------------------|------------|
| 1 | <i>Ocimum sanctum</i> | Labiatae | All parts | Anti-ulcer |
| 2 | <i>Allophylus serratus</i> | Sapindaceae | Leaves | Anti-ulcer |
| 3 | <i>Desmodium gangeticum</i> | Leguminosae | roots | Anti-ulcer |
| 4 | <i>Azadirachta indica</i> | Meliaceae | bark extract | Anti-ulcer |
| 5 | <i>Hemidesmus indicus</i> | Asclepiadaceae | extract | Anti-ulcer |
| 6 | <i>Asparagus racemosus</i> | Liliaceae | Extract of root | Anti-ulcer |
| 7 | <i>Terminalia pallida</i> | Combretaceae | Extract of plant | Anti-ulcer |
| 8 | <i>Embllica officinalis</i> | Euphorbiaceae | Fruit Extract | Anti-ulcer |
| 9 | <i>Centella asiatica</i> | Apiaceae | Fresh Juice | Anti-ulcer |
| 10 | <i>Bacopa monniera</i> | Scrophulariaceae | Fresh Juice | Anti-ulcer |
| 11 | <i>Musa sapientum</i> | Scitamineae | Fruit Extract | Anti-ulcer |
| 12 | <i>Carica papaya</i> | Caricaceae | seeds | Anti-ulcer |
| 13 | <i>Kielmeyera coriacea</i> | guttiferae | steem | Anti-ulcer |
| 14 | <i>Garcinia cambogia</i> | clusiaceae | Fruit extract | Anti-ulcer |
| 15 | <i>Benincasa hispida</i> | cucurbitaceae | fruit | Anti-ulcer |
| 16 | <i>Ficus arnottiana</i> | Moraceae | fruit | Anti-ulcer |
| 17 | <i>Alstonia Scholaris</i> | Apocynacea | Whole plant | Anti-ulcer |
| 18 | <i>Morinda citrifolia</i> | rubiaceae | fruit | Anti-ulcer |
| 19 | <i>Plectranthus amboinicus</i> | Lamiaceae | Whole plant | Anti-ulcer |

Table 5: List of plants which having Antidiabetic activity

| S.No | Botanical Name | Family | Parts used | Activities |
|------|----------------------------------|----------------|----------------|--------------|
| 1 | <i>Trigonella foenum-graecum</i> | Fabaceae | Seeds | Antidiabetic |
| 2 | <i>Nephoelepsis tuberosa</i> | Oleandraceae | rhizome | Antidiabetic |
| 3 | <i>Costus speciosus</i> | Costaceae | husk | Antidiabetic |
| 4 | <i>Plantago ovata</i> | Plantaginaceae | Bulb | Antidiabetic |
| 5 | <i>Allium sativum</i> | Alliaceae | Roots | Antidiabetic |
| 6 | <i>Hemidesmus indicus</i> | Asclepiadaceae | Bulb | Antidiabetic |
| 7 | <i>Allium cepa</i> | Liliaceae | Roots | Antidiabetic |
| 8 | <i>Acontium carmichaelii</i> | Ranunculaceae | Fruit | Antidiabetic |
| 9 | <i>Capsicum annum</i> | Solanaceae | seeds | Antidiabetic |
| 10 | <i>Galega officinalis</i> | Fabaceae | Fruit | Antidiabetic |
| 11 | <i>Ganoderma lucidium</i> | Ganodermatacea | Fruit | Antidiabetic |
| 12 | <i>Lathyrus japonica</i> | Fabaceae | seeds | Antidiabetic |
| 13 | <i>Oriza sativum</i> | Poaceae | Roots | Antidiabetic |
| 14 | <i>Tinospora cardifolia</i> | Menispermaceae | Whole plant | Antidiabetic |
| 15 | <i>Momordica charantia</i> | Cucurbitaceae | Fruit | Antidiabetic |
| 16 | <i>Pterocarpus marsupium</i> | Fabaceae | bark | Antidiabetic |
| 17 | <i>Zingiber officinale</i> | Zingiberaceae | rhizome | Antidiabetic |
| 18 | <i>Cyamospsis tetragonolobus</i> | Fabaceae | Fruit | Antidiabetic |
| 19 | <i>Grewia asiatica</i> | Malvaceae | Fruit | Antidiabetic |
| 20 | <i>Acacia arabica</i> | Leguminosae | seeds | Antidiabetic |
| 21 | <i>Aegle marmelos</i> | Rutaceae | Root bark | Antidiabetic |
| 22 | <i>Aloe vera</i> | Aloaceae | Leaf | Antidiabetic |
| 23 | <i>Artemisia pallens</i> | Compositae | aerial parts | Antidiabetic |
| 24 | <i>Annona squamosa</i> | Annonaceae | Leaf extracts | Antidiabetic |
| 25 | <i>Andrographis paniculata</i> | Acanthaceae | Plant extracts | Antidiabetic |
| 26 | <i>Azadirachta indica</i> | Meliaceae | Plant extracts | Antidiabetic |
| 27 | <i>Biophytum sensitivum</i> | Oxalidaceae | leaf extracts | Antidiabetic |
| 28 | <i>Boerhavia diffusa</i> | Nyctaginaceae | leaf extracts | Antidiabetic |
| 29 | <i>Cassia auriculata</i> | Leguminosae | flower extract | Antidiabetic |
| 30 | <i>Coccinia indica</i> | Cucurbitaceae | Leaf extract | Antidiabetic |
| 31 | <i>Casearia esculenta</i> | Flacourtiaceae | flower extract | Antidiabetic |
| 32 | <i>Catharanthus roseus</i> | Apocynaceae | Leaf extract | Antidiabetic |
| 33 | <i>Casearia esculenta</i> | Flacourtiaceae | leaf extract | Antidiabetic |
| 34 | <i>Catharanthus roseus</i> | Apocynaceae | Fruit extract | Antidiabetic |
| 35 | <i>Camellia sinensis</i> | Theaceae | leaf extract | Antidiabetic |
| 36 | <i>Ocimum sanctum</i> | Lamiaceae | leaf extract | Antidiabetic |
| 37 | <i>Mangifera indica</i> | Anacardiacea | leaf extract | Antidiabetic |
| 38 | <i>Punica granatum</i> | Punicaceae | leaf extract | Antidiabetic |

| | | | | |
|----|--------------------------|--------------|---------------|--------------|
| 39 | <i>Swertia chirayita</i> | Gentianaceae | plant extract | Antidiabetic |
|----|--------------------------|--------------|---------------|--------------|

Table 6: List of plants which having Anticancer activity

| S.No | Botanical Name | Family | Parts used | Activities |
|------|--------------------------------|----------------|---------------|------------|
| 1 | <i>Terminalia arjuna</i> | Combretaceae | Bark | Anticancer |
| 2 | <i>Andrographis paniculata</i> | Acanthaceae | Dried leaves | Anticancer |
| 3 | <i>Catharanthus roseus</i> | Apocynaceae | Whole plant | Anticancer |
| 4 | <i>Ochrosia elliptica</i> | Apocynaceae | Trunk Bark | Anticancer |
| 5 | <i>Podophyllum peltatum</i> | Berberidaceae | Dried Rhizome | Anticancer |
| 6 | <i>Zingiber officinalis</i> | Zingiberaceae | Rhizome | Anticancer |
| 7 | <i>Curcuma longa</i> | Zingiberaceae | Rhizome | Anticancer |
| 8 | <i>Vaccinium stamineum</i> | Ericaceae | fruit | Anticancer |
| 9 | <i>Calotrophis gigantea</i> | Asclepiadaceae | fruit | Anticancer |
| 10 | <i>Cajanus cajan</i> | Fabaceae | Whole plant | Anticancer |
| 11 | <i>Butea monosperma</i> | Fabaceae | leaves | Anticancer |
| 12 | <i>Bauhinia variegata</i> | Caesalpinaceae | Bark | Anticancer |
| 13 | <i>Alium cepa</i> | Liliaceae | Root | Anticancer |
| 14 | <i>Aloe barbadensis</i> | Liliaceae | Bulb | Anticancer |
| 15 | <i>Cassia auriculata</i> | Caesalpinaceae | leaves | Anticancer |
| 16 | <i>Cassia senna</i> | Caesalpinaceae | Root | Anticancer |
| 17 | <i>Citrus medica</i> | Rutaceae | Roots | Anticancer |
| 18 | <i>Daucus carota</i> | Apiaceae | Roots | Anticancer |
| 19 | <i>Jatropha curcas</i> | Euphorbiaceae | Leave. seeds | Anticancer |
| 20 | <i>Mimosa pudica</i> | Mimosaceae | Whole plant | Anticancer |
| 21 | <i>Nicotiana tabacum</i> | Solanaceae | Leaves | Anticancer |
| 22 | <i>Tylopora indica</i> | Asclepiadaceae | Roots. Leaves | Anticancer |
| 23 | <i>Vitex trifolia</i> | Verbanaceae | Leaves | Anticancer |

2. Conclusion

The search for better and safer ways of relieving pain is herbology. It would seem most people agree with the importance of pain relief for these analgesic herbs, some are the best loved and most popular remedies. Some uses for Analgesic herbs are in headaches, toothaches, sore muscles lower back pain and neuralgia. This review opens the way for the research of the active molecules from these plants, their characterization and isolation. These herbal plants have play a key role in analgesic, anti-inflammatory, anti-cancer, anti-ulcer and antidiabetic activities. The listed plants needs the isolation of active compounds from the active parts of the plants like phenol, flavonoids, carbohydrates, tannin, phlobatannins, glycosides and alkaloids etc.

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