GASTRIC ULCER (QARAH-E-MEDA) IN UNANI SYSTEM OF MEDICINE

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ABSTRACT

Peptic ulcer, also known as PUD or Peptic ulcer disease, is an ulcer of an area of the gastrointestinal tract that is usually acidic and thus extremely painful. PUD is one of the most common gastrointestinal disorders, which causes a high rate of morbidity. The lifetime prevalence of PUD is 5 to 10% with about equal prevalence in men and women. Modern lifestyles and unhealthy eating habits lead to different stomach and intestinal diseases and disorders. The stomach normally secretes acid that is essential in the digestive process. Peptic ulcer disease (PUD) develops when the protective mechanisms of the gastrointestinal mucosa, such as mucus and bicarbonate secretion, are overwhelmed by the damaging effects of gastric acid and pepsin. Symptoms include abdominal pain with severity relating to mealtimes, after around 3 hours of taking a meal; bloating and abdominal fullness; nausea, and copious vomiting; loss of appetite and weight loss etc. In the present scenario, Unani system of medicine is quite feasible to cure the diseases by its unique prescription of diet regimen and Unani system of Medicine (USM) has its own way of successful management of Gastric Ulcer and offers well integrated stepwise plan for treating a disease. It should be focus to sort out health related problems especially in GIT system. Present paper was aimed to collect information on various herbs which are used in treating PUD in various different parts of the world, depending upon the data’s provided by researchers.

INTRODUCTION

Peptic ulcer, also known as PUD or Peptic ulcer disease, is an ulcer of an area of the gastrointestinal tract that is usually acidic and thus extremely painful (Saumendu et al., 2013). Peptic ulcer disease is one of the most common gastrointestinal disorders, which causes a high rate of morbidity. An estimated 15,000 deaths occur each year because of PUD. The prevalence of duodenal ulcer is dominant in western population whereas gastric ulcer is more frequent in most Asian countries (Falcao et al., 2008). The lifetime prevalence of peptic ulcer disease is 5 to 10% with about equal prevalence in men and women (Wilson et al., 2003).

In Unani Medicine, gastric ulcer is known as Qarah -Meda. Unani scholars mentioned its causes as, Khilte Haad (hot and irritant humour), Fuzlat (waste products), intake of hot and spicy foods, excessive intake of rotten food, alcohol and hard fibrous diet, desensitization of internal surface of stomach which causes excessive gastric secretions, chronic gastritis and indigestion, prolonged stress and strains and unabsorbed gastric secretions.

Peptic ulcers occur due to the imbalance between factors that can damage the gastro-duodenal mucosal lining and defense mechanisms of the GIT which limits the injury (Crew et al., 2006). The aggressive factors include gastric juice (including hydrochloric acid, pepsin, and bile salts refluxed from the duodenum), infection, and NSAIDs (Goodman et al., 2000; Huang, 2002; Kato et al., 1992; Kim et al., 2010; Lasas et al., 2006). Mucosal defenses comprise a mucus bicarbonate layer secreted by surface mucus cells forming a viscous gel over the gastric mucosa; the integrity of tight junctions between adjacent epithelial cells; and the process of restitution, whereby any break in the epithelial lining is rapidly filled by adjacent epithelial and mucosal stromal cells migrating and flattening to fill the gap. Mucosal defenses depend on an adequate blood supply and on formation within the gastric mucosa (Wang et al., 2011).

Concept of PUD in Unani Medicine

Unani literature deals with gastric ulcer (Qarah-e-Meda) and intestinal ulcer (Qarha Ama’a) separately, while conventional medical science deals with these two diseases under the heading of peptic ulcer, which includes both gastric and intestinal ulcers. Qarha is an Arabic word which means...
“Wound”. Ibne Hubl Baghdadi has defined *Qarha* as: chronic loss of continuity in the muscles. Any type of wound in muscle is sometimes called “*Jaraat*” and *Qarha*. (Ibne Hubl, 2004;Goodman et al., 2000; Huang, 2002; Khan et al., 2003).

Ibne Sina, Jurjani, Ibne Hubl and Azam Khan have hypothesised that *Qurookh-e-Meda* (gastriculceration) occur due to the damage of gastric mucosa which is caused by the irritant and corrosive humour which penetrate into and breach the continuity of gastric mucosa /tissue. According to them, these causative agents might be the product of stomach itself or a foreign matter which has been diverted to stomach from other organs such as brain. Also they had a view that a person’s food habit may play an important role in the pathogenesis of ulceration as they believed that spicy food might act as irritant to the stomach and hence it might alter the defence mechanism of gastric mucosa (Ibne Hubl 2004;Huang, 2002; Jurjani et al, 1903; Khan,1335 H;Khan,1313 H; Ib n Sina ,2007).

**Etiology and Pathogenesis**

- Genetic predisposition
- Abnormalities in secretion of acid and Pepsis
- Abnormalities of mucosal defense
- Delayed gastric emptying
- Reflux of bile and pancreatic juice
- Emotional stress
- Role of Microbes (H.pylori) (Jamal et al., 2006)

**Usool-E-ILAJ (Principle of Treatment) in USM**

- Use of Qabizat (Astringent drugs) for binding effect of ulcers.
- Intake of easily digestible food.

**List of Single drugs generally used by Unaniphysicians in Gastric Ulcer Disease (PUD)**

<table>
<thead>
<tr>
<th>Unani Name</th>
<th>Botanical Name</th>
<th>Part use</th>
<th>Temperament</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burada Sandal Sai faid</td>
<td>Santalum album</td>
<td>Wood</td>
<td>Cold &amp; Dry</td>
<td>Mufarrah, Musakkain, Daaf-e-Taun, Munaffise-Balgham</td>
</tr>
<tr>
<td>Amla</td>
<td>Emblica officinalis</td>
<td>Fruit</td>
<td>Cold &amp; Dry</td>
<td>Muqawwi qalb, Qabi, Musakkain, Muqawwi-e-Dimag</td>
</tr>
<tr>
<td>Mastagi</td>
<td>Pistacia lentiscus</td>
<td>Resin</td>
<td>Hot &amp; Dry</td>
<td>Kasre riyah, Hazin, Jali, Munaffise balgham</td>
</tr>
<tr>
<td>Asgand</td>
<td>Withania sommifera</td>
<td>Root</td>
<td>Hot &amp; Dry</td>
<td>Muqawwia-e-aam, Muhallile warm, Musakkain-e-Asab, Munawwim, Muqawwi- e-meda, moulide mani</td>
</tr>
<tr>
<td>Khulanjian</td>
<td>Alpinia galanga</td>
<td>Root</td>
<td>Hot &amp; Dry</td>
<td>Munjiz, Muqawwia asab, Muhallile-e-warm, munaffise balgham, kasir-e-riyah</td>
</tr>
<tr>
<td>Asl-us-soos</td>
<td>Glycyrrhiza glabra</td>
<td>Wood</td>
<td>Hot &amp; Wet</td>
<td>Munawwim, Mukhaddir, musakkain</td>
</tr>
<tr>
<td>Kahu</td>
<td>Lactuca sativa</td>
<td>Seed</td>
<td>Cold &amp; Dry</td>
<td>Muharrar, Muqawwia baha, Muhallilize mani, Muqawwi-e-raham</td>
</tr>
<tr>
<td>Satawar</td>
<td>Asparagus racemosus</td>
<td>Root</td>
<td>Cold &amp; Wet</td>
<td>Mugharris, waus akkass</td>
</tr>
<tr>
<td>Khatri</td>
<td>Althea rosea</td>
<td>Seed, root</td>
<td>Hot &amp; wet</td>
<td>Muhallile, musakkain, muqawa, daaf-e-Tafun, mullahiyin, munjiz, daaf-e-bukhar</td>
</tr>
<tr>
<td>Haldi</td>
<td>Curcuma longa</td>
<td>Rhizome</td>
<td>Hot &amp; Dry</td>
<td>Muhallile-e-warm, Musakkain, Muhallile-e-warm, Muqawwia qalb wah dimag wah meda, kasir-e-riyah, Qabiz</td>
</tr>
<tr>
<td>Kishneez</td>
<td>Coriandrum sativum</td>
<td>Fruit</td>
<td>Hot &amp; Dry</td>
<td>Musakkain, Muhallile-e-warm, Muqawwia qalb wah dimag wah meda, kasir-e-riyah, Qabiz</td>
</tr>
<tr>
<td>Badranboya</td>
<td>Melissa parviflora</td>
<td>Boot</td>
<td>Hot &amp; Dry</td>
<td>Muffarreh, Muqawwi-e-qalb, Musakkain, Munijz-e-sauda, Musaffi-e-dam, mahuillile-e-warm</td>
</tr>
<tr>
<td>Aspaghol</td>
<td>Plantago ovata</td>
<td>Seeds, Husk</td>
<td>Cold &amp; Wet</td>
<td>Musakkain, mahuillile, mulayyan</td>
</tr>
<tr>
<td>Elva</td>
<td>Aloe barbadensis</td>
<td>Seeds, Husk</td>
<td>Hot &amp; Dry</td>
<td>Mushily, mudir, mahuillile</td>
</tr>
<tr>
<td>Gaozaban</td>
<td>Borago officinalis</td>
<td>Flower, leaves</td>
<td>Cold &amp; Wet</td>
<td>Munaffise balgham, mutiarrak, muqawwi-e-qualb</td>
</tr>
<tr>
<td>Bed Mushk</td>
<td>Salix capera</td>
<td>Flower</td>
<td>Cold &amp; Wet</td>
<td>Mufarreh, Muqawwi aza raesaa, Muqawwi-e-badam, daaf-e-qalb, mahuillile auram, musakkain</td>
</tr>
<tr>
<td>Gul-e-surkh</td>
<td>Rosa damascena</td>
<td>Flower</td>
<td>Murakak ul qawa</td>
<td>Mufarreh, Muqawwi-qa-a raesaa, Muqawwi-e-badam, daaf-e-qalb, mahuilllie auram, musakkain</td>
</tr>
<tr>
<td>Bekhe Kasni</td>
<td>Chichorium intybus</td>
<td>Root</td>
<td>Hot &amp; Dry</td>
<td>Munjij-e-bulgham, mutaath sudad, mudir-e-baul wa haiz, mahuillile-e-auram</td>
</tr>
<tr>
<td>Nifoar</td>
<td>Nymphaea alba</td>
<td>Flower</td>
<td>Cold &amp; wet</td>
<td>Muqawwi-e-qalb, Muqawwi-e-dimag, musakkain-e-hiddat-e-khoon, mahuillile-e-warm</td>
</tr>
</tbody>
</table>


**Treatment**

Unani physicians in the treatment of gastritis, gastric ulcer and associated disorders, drugs having stomachic, astringent, desiccant, styptic, sedative and coolant activities are used(Ghani, 2011). There are many herbs and plant products that have been found tp play a role in protecting or helping to heal stomach and peptic ulcers (Saumunds et al., 2013). Herbal drugs can provide lead for the development of such antiulcer drugs because these drugs are considered safer in view of their natural ingredients. In recent times, focus on plant research has increased all over the world and a large body of evidence has been collected to show immense potential of medicinal plants used in various traditional systems of medicine (Dahnum et al., 2000).
Khatmi (Althaea officinalis)

Introduction
Khatmi belongs to the family Malvaceae. It is native of most countries of Europe and is also distributed in the temperate and subtropical region of Asia and Europe (Kirtikar and Basu, 1987; Khory an Katrak, 1981). Actual Khatmi is Althea officinalis but due to inappropriate practice of vernacular name in certain regions of India Althea rosea, another species of genus Althea is also known as Khatmi.

Chemical constituents
Many compounds were extracted from different parts of the plants, these included pectins 11%, starch 25-35%, mono-, disaccharide saccharose 10%, mucilage 5%, flavonoids: hypolaetin-8-glucoside, isoquercitrin, kaempferol, caffeic, pycoumaric acid, ferulic acid, p-hydroxybenzoic acid, salicylic acid, p-hydroxyphenyleacetic acid, vanillic acid, coumarins, scopoletin, phytosterols, tannins, asparagine and amino acids (Blumenthal et al., 2000; Ali, 2013).

Action
Anti-tussive, anti-inflammatory, antiastenogenic, antimicrobial, immunomodulatory, antioxidant, antiulithiatic, and cytotoxic activity (Sharma et al., 2016).

Therapeutic Uses
Metritis (Warne reham), enteritis (Warne amma), mastitis (Warne pistan), arthritis (Waja ul mafasili), etc. (Ghani, 2011; Ibn-e-Baitar, 2003; Kabiruddin, 2005).

It also has been used for other ailments like catarrh (Nazla), renal calculi (Sang e gurdah), ptyriasis (Bahaq), tremor (Raasha), dysuria (Usr ul baul), dysentery (Zaheer), haemoptysis (Nafs ud dam), whooping cough (Shahqeeqa), etc. (Ghani, 2011; Ibn-e-Baitar, 2003; Kabiruddin, 2005).

Pharmacochemical Studies
Antibacterial Activity
The hexane extracts of flower and root of Althea officinalis exerted antimicrobial activity against Gram-positive and Gram-negative bacteria (Escherichia coli, Pseudomonas aeruginos, Klebsiella pneumoniae, Bacillus subtilis, Enterococcus faecalis, Staphylococcus aureus and Staphylococcus epidermidis), as well as three fungi (Aspergillus niger, Candida albicans and Saccharomyces cerevisiae) (Valiei et al., 2011).

Rashidi et al. (2011) also found that 80% ethanolic Althea officinalis extract was active against Aspergillus niger, Aspergillus fumigatus, and Aspergillus flavus species. MIC of Althea officinalis 80% ethanolic extract 50-100 mg/ml.

Antimicrobial activity
A methanolic extract Althea officinalis root has been shown to possess an inhibiting activity on the periodontal pathogens (Porphyromonas gingivalis, Prevotella spp., Actinomyces odontolyticus, Veilonella parvula, Eikenella corrodens, Fusobacterium nucleatum, Peptostreptococcus spp.) present in the oral cavity. Antimicrobial activity against Pseudomonas aeruginosa, Proteus vulgaris and Staphylococcus aureus has also been found in chloroform and methanolic extracts of Althea officinalis roots (Valiei et al., 2011).

Radical scavenging effect
The extract of Althea officinalis exhibited strong antioxidant activity in different antioxidant tests (Panda and Kar, 2006). The reddish pink petals of Althea officinalis flowers were found to have more antioxidant activity than pink and white flowers (Sadighara et al., 2012).

ASL-US-SOOS (Glycyrrhiza glabra)

Introduction
Asl-us-soos is the dried unpeeled stolon and root of the plant Glycyrrhiza glabra (Anonymous, 2007). The word Glycyrrhiza has been derived from two Greek words “Glykys” means sweet and “Rhiza” means root, thus the meaning of Glycyrrhiza is sweet root. Common name of Glycyrrhiza glabra Linn is liquorice (Ross, 2003), belonging to the family Leguminosae (Chopra et al., 2006; Ross, 2003). It is mostly found in the subtropical and warm climate (Ross, 2003).

Action
The rhizomes are considered to possess carminative (Anonymous, 2007), antiasthmatic, antiasteniotic, antihyperlipidemic (Ross, 2006), antimutagenic (Sharma et al., 2014).

Therapeutic Uses

Phytochemistry
Glycyrrhizin, chalcones, isoflavonoids, coumarins, triterpenoids and sterols, volatile oils (Khare 2007; Kabeeruddin, 2005). The chief constituent of Liquorice is “Glycyrrhizin” which is present in the drug in the form of potassium and calcium salts of glycyrrhizic acid. Glycyraramin, β sitosterol, Protein, Starch (29%), Flavanoids like Liquiritin, Isoliquiritin, Liquiritigin and Isoliquiritigin, resin, gum, mucilage, phosphoric acid, sulphuric acid, mallic acid, cadmium and magnesium salt (Rastogi, 1960). Coumarins present in G. Glabra include liqucoumarin, glabrocoumarone A & B, Herniarin, Umbelliferone, Glycyrrin, Glycocoumarin, Licofuranocoumarin, Licopyranocoumarin (Jatav et al., 2011).

Pharmacological Studies
Immunostimulatory effects
In vitro studies proved that Glycyrrhiza glabra at 100μg/ml concentration, showed immunostimulatory effects. It increases production of TCD69 lymphocytes and macrophages from human granulocytes. According to in vivo studies, liquorice root extract was found to prevent the rise in the number of immune-complexes related to autoimmune diseases like systemic lupus erythematosus (Alonso, 2004).

Anti-oxidant and Anti-Bacterial Activity
Hydromethanolic root extract of Glycyrrhiza glabra L., showed existence of numerous useful secondarymetabolites such as: flavonoids, saponins, alkaldoids and so on. Because of these constituents the extract exhibited effective anti-oxidant and anti-bacterial activities. It is able to fight against scavenging
hydroxyl radical and bacterial infection. It may be a significant remedy for inhibition of bacterial infection and scavenging of hydroxyl radicals which are produced during carcinogenesis (Sharma et al., 2013).

Antioxidant activity

High content of phenolic component in ethanolic extract of Liquorice (Glycyrrhiza glabra L.) is responsible for its powerful antioxidant activity by means of significant free radical scavenging, hydrogen-donating, metal ion chelating, anti-oxidative peroxidative and reducing abilities (Visavadiya et al., 2009). Thus, liquorice extract can be efficiently used to formulate cosmetic products for the protection of skin and hair against oxidative damage (Alonso et al., 2004).

Anti-Viral Activity

Antiviral activities of ribavirin, 6-azauridine, pyrazofurin, mycophenolic acid and glycyrrhizin proved that glycyrrhizin was the most efficient in controlling viral replication. Thus, it can be a good prophylactic measure (De-Clercq, 2000; Cinatl, 2003). Glycyrrhizic acid was found to have a distinctive effect against Kaposi sarcoma-associated herpes virus (KSHV) as found in In vitro studies. KSHV also becomes latent in infected cells same as other herpes virus. It is proved that glycyrrhizic acid can terminate latent infection of KSHV when all current drugs are found to be ineffective against latent infection. Glycyrrhizic acid down-regulates the expression of latency associated nuclear antigen (LANA) in B lymphocytes. This causes natural cell death (apoptosis) of the KHSV virus (Curreli et al., 2005).

Anticoagulant

Glycyrrhizin is the first plant-based inhibitor of thrombin. It is found to prolong the thrombin and fibrinogen clotting time. It also increases plasma recalcification duration. Glycyrrhizin causes inhibition in thrombin induced platelet aggregation. But there was no effect of glycyrrhizin on Platelet Aggregating Factor (PAF) and Collagen induced agglutination (Mendes et al., 2003).

KISHNEEZ (Coriandrum sativa)

Introduction

Coriander is mentioned in the papyri of Ebers and in the writings of Cato and Pliny. It was well known in England before the Norman Conquest (Pandey, 2010). It is annual herb originating from the Mediterranean (Vaidya, 2000). The whole plant and especially the unripe fruit, is characterized by a strong disagreeable odour, wherever the name coriander (from the Greek k`opis, a bug)(Gruenwald, 2004).

Action

It has diaphoretic, diuretic, carminative and stimulant. In Iranian traditional medicine, coriander has been indicated for a number of medical problems such as dyspeptic complaints, loss of appetite, convulsion and insomnia (Benjumea et al., 2005; Maghrani et al., 2005; Duke, 2002).

Therapeutic Uses

Digestive tract disorders, respiratory tract disorders, urinary tract infections (Ghani, 2011).

Phytochemicals of coriander

Green coriander contains 84% water. Seeds contain up to 1.8% volatile oil according to origin (BP standard not less than 0.3%). The distilled oil (coriander oil BP) contains 65-70% of (+)-limonol (coriandrol), depending on the source, and smaller amounts of α-pinene, γ-terpinene, limonene and β-cymene together with various nonlimonol alcohols and esters. Other constituents isolated from the fruits include flavonoids, coumarines, isocoumarines, phthalides and phenolic acids. 13% resin, astringent principle, malic acid and alkaloids, coriander oil contains coriandrol, jireniol and vebrinol (Evans, 2006; Czygan et al., 2001).

Pharmacological Studies

Anti-hyperglycemic Activity

Its seed extract is used as a traditional medicine for diabetic patients. Incorporation of ground coriander seed extract in diet led to marked decline in blood glucose and rise in levels of insulin in diabetic rats. Besides peroxidative damage inhibition, addition of its seed extract reactivated antioxidant enzymes and antioxidative levels in diabetic rats (Deepa and Anuradha, 2011).

Anti-microbial Activity

Aqueous infusions and aqueous decoctions of Coriandrum sativum (coriander) against 186 bacterial isolates belonging to 10 different genera of gram +ve bacterial population and 2 isolates of Candida albicans isolated from urine specimens. The well diffusion technique was employed. The aqueous infusion and decoction of coriander did not show any antimicrobial activity against gram -ve urinary pathogens as well as against Candida albicans (Perween tariq et al., 2007).

Antioxidant Activity

The antioxidant activity of the studied essential oils and their mixtures was assessed in the aldehyde/carboxylic acid test. This method is also carried out by DPPH radical-scavenging assay, Inhibition of 15LO, Inhibition of phospholipid peroxidation. Extracts from both leaves and seeds showed a concentration-dependent DPPH scavenging activity respectively (Wangensteen et al., 2004).

Sedative Hypnotic Activity

To determine sedative & hypnotic activity Aqueous and hydroalcoholic extract & essential oil administer to rat. The results of experiment show that Aqueous extract prolonged pentobarbitonal-induced sleeping time at 200, 400 and 600 mg/kg. Hydro-alcoholic extract at doses of 400 and 600 mg/kg increased pentobarbitonal- induced sleeping time compared to saline-treated group. The essential oil increased pentobarbitalinduced sleeping time only at 600 mg/kg. The extracts and essential oil of coriander seeds possess sedative-hypnotic activity (Emamghoreishi et al., 2006).

SATAVAR (Asparagus racemosus)

Introduction

Asparagus racemosus is an indigenous medicinal plant of the family Liliaceae (Chopra, 1956; Anonymous, 1976) is important for its sapogenin content. Asparagus is the Greek word for “stalk” or “shoot”. About 300 species of Asparagus are known to occur in the world in many countries.
occurs widely throughout the tropical and subtropical regions (Evans, 1978).

The plant is a spinous under-shrub, with tuberous, short rootstock bearing numerous succulent tuberous roots (30–100 cm long and 1–2 cm thick) that are silvery white or ash coloured externally and white internally (Anonymous, 1987).

**Action**

Anticancer activity, antidisenteric activity, antifungal activity, antibacterial activity, antiinflammatory activities, antiulcer activity, antioxidant activity, anti-abortifacient activity (Shatavar 1), Antioxytoxic (shatavarin 4), spasmodic to uterus Hypoglycemic, hypertensive activity, anticoagulant activity (Sharma et al., 2000). Antidyspepsia and antittusive effects (Bopana et al., 2007).

**Therapeutic Uses**

Gastric ulcers, dyspepsia, diarrhea, nervous disorders (Goyal and Lal, 2003), dysentery (Bopana et al., 2007). Depression, inflammation cancer, lithiasis, Hepatotoxicity, diabetes (Lee et al., 2009; Mandal et al., 2000; Ojha et al., 2010; Thakur et al., 2009; Bhattacharya et al, 2002).

**Chemical constituent**

The major active constituents of A. racemosus are steroidal saponins named as shatavarin I and shatavarin IV. 8-methoxy-5,6,4'-trihydroxyisoflavone a new isoflavone was isolated by roots of A. racemosus (Saxena et al., 2001; Wiboonpun et al., 2004), isolated a new antioxidant compound named Racemofuran, together with known compounds asparagamine A, and racemosol. Three steroidal saponin namely Racemosides A, B and C were isolated from the methanolic extract of fruit of A. racemosus, earlier reported isoflavones, steroidal glycosides, polycyclic alkaloids and a dihydrophenanthrene derivative were isolated from roots of plant but there has been no report on the chemistry of the constituents of its fruit (Hayes et al., 2006). In root, Saponins—shatavarins I–IV. Shatavari IV. (Khare 2007; Kabeeruddin, 2005).

**Pharmacological Activities**

**Antiulcer effect**

Asparagus racemosus is an effective ant ulcerogenic agent whose activity can easily be compared with that of ranitidine hydrochloride Asparagus racemosus causes an inhibitory effect on release of gastric hydrochloric acid and protects gastric mucosal damage. Hence the roots of the Shatavari plant in the form of powder can be administered to chronic ulcer patients along with other patients (Anil Mangal et al., 2004).

**Immunomodulant**

Thakur et al. (2011) worked to screen the activity of polysaccharide fraction of A. racemosus as immunomodulant. Phytochemical evaluation confirmed the presence of 26.7% fructo-oligosaccharide (FOS). Natural Killer (NK) cell activity was evaluated as NK cell activity is considered to be important attribute of the immune system. The results indicate that FOS from A. racemosus potentiates the NK cell activity and this could be an important mechanism underpinning the chemical properties of this plant.

**Antidepressant**

Singh et al., (2009) evaluated antidepressant activity of A. racemosus in rodent models. They made use of methanolic extract of roots of plant. The results show that methanolic extract of A. racemosus decreases immobility in Forced Swim Test (FST) and increases avoidance response in Learned Helplessness test (LH) indicating antidepressant activity.

**Anticarcinogen**

Many reports support the presence of compounds in A. racemosus which can be helpful in treatment of cancer. Bhutani et al. (2010) conducted a study on steroidal saponins of A. racemosus for apoptosis inducing study. They investigated the anti-proliferative activity of steroidal constituents isolated from A. racemosus on human colon carcinoma cells. They concluded that the steroidal saponin have the potential of being used for the development of potential cancer therapeutics.

**Antioxidant action**

The levels of enzymes like superoxidase dismutase, catalase and ascorbic acid increase with significant reduction in the lipid peroxidation. The antioxidant properties were mainly exhibited due to the presence of Isoflavons (Wiboonpun et al., 2004).

**CONCLUSION**

Peptic ulcer disease (PUD) is one of the most common gastrointestinal disorders. The lifetime prevalence of PUD is 5 to 10% with about equal prevalence in men and women. In Unani Medicine, gastric ulcer is known as Qarah -e-Meda. Peptic ulcers occur due to the imbalance between factors that can damage the gastro-duodenal mucosal lining and defense mechanisms of the GIT which limits the injury.

In Unani System of medicine, treatment of gastritis and associated disorders, drugs having stomachic, astringent, desiccant, styptic, sedative and coolant activities are used. Conventional medicine treats peptic ulcer by proton pump inhibitors (PPI), H₂ receptors antagonist, antacids and antibiotics for H. pylori infection. Increasing popularity of alternative system of medicine, it is necessary to conduct research to support the therapeutic claim and also to ensure that the plants are given importance according to their therapeutic value, in modern herbal medicines. The present paper was aim to collect information of the medicinal plants used for the treatment of PUD. Some of them are already reported as anti-ulcer drug, but for some still no under researched and these are only used traditionally.

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