INTRODUCTION: Peptic ulcer and liver diseases are serious health problems nowadays. In our body liver play the key role in metabolism, secretion and storage. Due to the liver disorder, about 20000 deaths are found every year due to liver disorders and as a consequence of peptic ulcer about 15000 deaths occur each year. Hepatocellular carcinoma is most common.

In general, hepatotoxic chemicals engender some reactive species, which form a covalent bond with the lipid which is responsible for damage liver cells. An ulcer is mostly a swollen break in the skin or the mucous membrane present in the lining of the alimentary tract.

The main cause of peptic ulcer is the increase acids secretion and disturbance of the normal equilibrium either caused by enhanced diminish or aggression in mucosal resistance. Other causes of peptic ulcer are a bacterial infection (H. pylori), long-term uses of painkiller such as ibuprofen, naproxen sodium, etc., stress and spicy food habit. Hydrochloric corrosive and pepsin harm the mucous film of the gastrointestinal tract as the outcome both gastric...
and duodenal ulcers happen. Ulcers, for the most part, extend between 3 mm and a few centimeters in measurement. Duodenal ulcers are more common in adult males. Gastric ulcers happen commonly at old age person and in the middle class of people. Peptic ulceration occurs in those areas where acid secretion is generally more.

In the human body, the liver is the largest organ. The basic role of liver is control of different physiological procedures like metabolisms of carbohydrate, various type of fat, protein. It also plays an important role in detoxification, bile acid secretion which is important for digestion and storage of vitamin. Along these lines, to keep up a healthy liver is most vital for a healthy human. As a result of these functions, hepatic illnesses are the chief threat to general wellbeing, and nowadays hepatitis is widespread diseases. There are various reasons for liver diseases. They may be as follows:

1. Too much interpretation of harmful chemicals.
2. An excessive amount of free radical suppress the natural defensive system in our body and also damage the hepatic cell, reason of cirrhosis, jaundice and fatty liver.
3. Intense harming with carbon tetrachloride causes fast lipid deposition before necrosis becomes evident.
4. There is no hazardous chemical which reduces the antioxidant activity of enzyme-like glutathione peroxidase, catalase, superoxide dismutase and so on.

The most of the liver diseases are classified as follows:

a. Fatty liver diseases
b. Hepatosis (caused by the viral infection)
c. Cirrhosis
d. Liver cancer

By trials and errors, the ancient people used herbs for relieving their health problems in very primitive ways. The treatment alternatives for normal liver infections and ulcers are limited due to the lack of hepatoprotective and antiulcer drugs in allopathic medicines.

For the development of new drugs for the treatment of hepatic and ulcer disease, various screening models are available. The various screening models are given in Table 1.

<table>
<thead>
<tr>
<th>Antiulcer activity</th>
<th>Hepatoprotective activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid induced ulcers</td>
<td>Paracetamol (acetaminophen) induced hepatotoxicity</td>
</tr>
<tr>
<td>Ulcers caused by histamine-induced</td>
<td>CCl₄ induced hepatotoxicity</td>
</tr>
<tr>
<td>Ulcers caused by Acetic acid-induced</td>
<td>Alcohol and carbon tetrachloride induced hepatotoxicity</td>
</tr>
<tr>
<td>Ethanol-induced ulcers</td>
<td>Carbon tetrachloride and paraffin induced hepatotoxicity</td>
</tr>
<tr>
<td>Aspirin-induced ulcers</td>
<td>Hepatotoxicity caused by giving d-galactosamine/ lipopolysaccharide</td>
</tr>
<tr>
<td>Ulcer cause by giving water immersion stress</td>
<td>Thioacetamide induced hepatotoxicity</td>
</tr>
<tr>
<td>Pylorus ligation induced ulcers</td>
<td>Hepatotoxicity caused by giving Antitubercular drugs</td>
</tr>
<tr>
<td>Ulcer cause by reserpine-induced</td>
<td>Indomethacin-induced ulcers</td>
</tr>
<tr>
<td>Serotonin-induced ulcer</td>
<td></td>
</tr>
</tbody>
</table>
**Eclipta alba:** It is a perennial shrub mostly found in moist tropical countries. *Eclipta alba* (L.) generally contains alkaloids, flavonoids, glycosides, polyacetylenes, triterpenoids. Aerial part contains no of flavonoids such as Apigenin, Luteolin-7-O-glucoside various type of triterpene like β-amyrin and, cinnaroside, sulphur compounds, eclabasaponins I-VI. The *Eclipta alba* (EA) extract has a good effect on the hepatotoxic cause by paracetamol induced.

From the various experiments, it found that *E. alba* (ethanolic extract) show the effect on the paracetamol-induced hepatotoxic model in mice at various dosage forms like 100 mg and 250 mg/kg body weight weigh. This herbal extract has a significant role in normalizing the elevated serum transaminase levels which caused due to liver injury, lack of blood flow, etc. From the microscopic examination of tissue, it proved that the drug reduces in fatty deterioration and centrilobular necrosis.

**Picrorhiza kurroa:** It is a very common herb in the Indian traditional Ayurveda medicine. From the various literature survey, it found that *Picrorhiza kurroa* has used as a vital medicine for liver disorder and it used as very significant ingredient for many Ayurvedic formulations for the treatment of liver toxicity. From the deferent study, it was found *P. kurroa* posses very good antioxidant properties.

From the experiment, it cleared that drug reduces the glutathione level and activates the enzyme which is helpful for antioxidant activity such as glutathione peroxidase. *Picrorhiza kurroa* extract treated rat group (antitubercular drug-induced model) for 50 mg/kg body weight for 50 days, give the significant result to normalize the elevated body serum level.

**Phyllanthus niruri:** *Phyllanthus niruri* L. belongs to the family Euphorbiaceae utilized as a part of conventional medicine to treat an ulcer. *Phyllanthus niruri* leaves extract (ethanol) give the significant result on ulcer causes by ethanol-induced model. This plant extract at the dosage 200 mg and 400 mg/kg body wt gives the best result. The methanolic and aqueous extracts of *P. niruri* fruits are also very effective in inhabit the lipid peroxidation level. Fruit extract is very effective in normalizing the elevated enzyme level such as glutamate pyruvate transaminase carbon tetrachorired, glutamate oxaloacetate transaminase, etc. in carbon tetrachloride-induced ulcer model.

**Trichopus zeylanicus:** *Trichopus zeylanicus* belong to the family Dioscoraceae, is a small, rare herbaceous plant generally found from tropical forests of Malaysia, Sri Lanka and southern India. In Ayurvedic system of medicine *Trichopus zeylanicus* is generally used as immune boost up medicine. In ancient time people used *Trichopus zeylanicus* for relieving from ulcer, liver disorder and for improving sexual performance. From the phytochemical study, it was found that methanolic extract of *Trichopus zeylanicus* gives the positive result for the presence of, alkaloids, flavonoids, steroids, triterpenoid saponins, etc. From the experiment, it was found that this plant leaves extract (100 mg per kg body weight) and leaves suspension (1000 mg per kg body weight) both are very affecting to reduce the elevated body serum level in rat ulcer caused by paracetamol administration. Histopathological study of rat group treated by *T. zeylanicus* gives positive result.

**Schouvia thebica:** From the various study it was cleared that *Schouvia thebica* extracts play the important role as a hepatoprotective drug. Various solvent extracts of *S. thebica* webb introduced to rats, as a hepatoprotective drug. As a result, it was found that these extracts effectively normalize the elevated body serum level.

**Syzygium aromaticum** L: The herbal drug *Syzygium aromaticum* L. (Family Myrtaceae) generally called as clove used as flavoring agents. Reported chemical constituents present in this plant are tannins, sterols, triterpenes, flavonoids. From the different literature survey, it was found an *n*-butanol extract of dried flower buds of clove is very effective for the treatment of ulcer and gastric disorder in rats. From the father study, it was clear that the ulcer activity of this plant is due to the one of the main ingredient eugenol. The pharmacological study suggests, eugenol stimulate the synthesis of mucus; as a result, the mucus layer became thick. Thus the eugenol act as gastroprotective drug.

**Zingiber officinale:** *Zingiber officinale* Roscoe (Ginger) is a very potent Indian medicinal herb.
medicine very renounce treatment of gastrointestinal tract disorder. This herb is also famous for treatment for diarrhea nausea vomiting and dyspepsia. In ayurvedic system of medicine, Ginger is commonly used as antispasmodic, aromatic, and for prevention of gas formation in 38. It found that if we compare the effect ginger extract (hydroalcoholic) with dose (100, 350, 700 mg/kg) with standard drug ranitidine (50 mg/kg), it gives the positive result. As a result, larger doses of extract (350 and 700 mg/kg) were effective to the ulcer.

There are some of the medicinal plants which are commonly used as the liver disorder. In this review, we have systematically arranged all the medicinal plants which are very effective to reduce the hepatic disorder in a various animal model. Here we also mention which part of the plants is more effective Table 2.

<table>
<thead>
<tr>
<th>S. no.</th>
<th>Name of the plant</th>
<th>Part used</th>
<th>Extraction solvent</th>
<th>Chemical constituent</th>
<th>Animal model</th>
<th>Hepatotoxic agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Aerva lana</em></td>
<td>Leaf and root</td>
<td>Aqueous alcoholic extract</td>
<td>Sitosteryl palmitate, hentriacontane, beta–sitosterol, D-glicoside</td>
<td>Rat</td>
<td>Paracetamol</td>
</tr>
<tr>
<td>2</td>
<td><em>Artemisia capillaris</em></td>
<td>Whole plants</td>
<td>Aqueous ethanol extract</td>
<td>Eupatolin, arcapallin, capillartemisina, capillartemisin B 5, 2, 4-trihydroxy 6, 7, 5 Trimethoxyflavone squalene, polyrenol, beta-sitosterol, lutein, and beta-carotene</td>
<td>Rat</td>
<td>Carbon tetrachloride</td>
</tr>
<tr>
<td>3</td>
<td><em>Aphanamixis polystachya</em></td>
<td>Leaves</td>
<td>Ethanolic extract</td>
<td>Saponins, sapogenins, flavonoids including shallomin, quercetin and kaempferol, glycosic flavonols Carbohydrates, proteins, steroids and flavonoids</td>
<td>Rat</td>
<td>Carbon tetrachloride</td>
</tr>
<tr>
<td>4</td>
<td><em>Allium hirtifolium</em></td>
<td>Leaves</td>
<td>Hydro-alcoholic extract</td>
<td>Saponins, sapogenins, flavonoids, saponins, including flavonoids, including shallomin, quercetin and kaempferol, glycosidic flavonols Carbohydrates, proteins, steroids and flavonoids</td>
<td>Rats</td>
<td>Alloxan</td>
</tr>
<tr>
<td>5</td>
<td><em>Amorphophallus Paeonifolius</em> Linn. (Araceae)</td>
<td>Tuber</td>
<td>Methanol and aqueous extract</td>
<td>Carbohydrates, proteins, steroids and flavonoids</td>
<td>Rat</td>
<td>Paracetamol</td>
</tr>
<tr>
<td>6</td>
<td><em>Allium sativum</em> (Alliaceae)</td>
<td>Bulbs</td>
<td>Ethanolic extract</td>
<td>Alkaloids such as berbamine berberine, oxyacanthine, protoberbite alkaloids palmitine, flavonoids Monoterpenoids such as alpha-thujene and T-muurol, triterpenoid sesquiterpene, triterpene alcohols, and flavonol glycosides, flavonoids, saponins.</td>
<td>Rat</td>
<td>Carbon tetrachloride</td>
</tr>
<tr>
<td>7</td>
<td><em>Berberi vulgaris</em> (Berberidaceae)</td>
<td>Fruit</td>
<td>Methanol extract</td>
<td>Alkaloids such as berbamine berberine, oxyacanthine, protoberbite alkaloids palmitine, flavonoids Monoterpenoids such as alpha-thujene and T-muurol, triterpenoid sesquiterpene, triterpene alcohols, and flavonol glycosides, flavonoids, saponins.</td>
<td>Rat</td>
<td>Carbon tetrachloride</td>
</tr>
<tr>
<td>8</td>
<td><em>Calendula officinalis</em> (Asteraceae)</td>
<td>Flower</td>
<td>Methanol extract</td>
<td>Monoterpenoids such as alpha-thujene and T-muurol, triterpenoid sesquiterpene, triterpene alcohols, and flavonol glycosides, flavonoids, saponins.</td>
<td>Albino</td>
<td>Rat</td>
</tr>
<tr>
<td>9</td>
<td><em>Cercissili quastrum</em> (Leguminosae)</td>
<td>Whole plants</td>
<td>Hydro-alcoholic extract</td>
<td>Myricitoside, atractylon, diterpenoids, triterpenoids</td>
<td>Rat</td>
<td>Carbon tetrachloride</td>
</tr>
<tr>
<td>10</td>
<td><em>Citrus lanatus</em> (Cucurbitaceae)</td>
<td>Fruits</td>
<td>Methanolic extract</td>
<td>Alkaloids, triterpenes, anthraquinones, sterols, flavonoids, saponins, tannins, flavones aglycone, and simple phenols</td>
<td>Rat</td>
<td>Carbon tetrachloride</td>
</tr>
</tbody>
</table>

TABLE 2: MEDICINAL PLANTS HAVING HEPATOPROTECTIVE ACTIVITY
<table>
<thead>
<tr>
<th>S. no.</th>
<th>Name of the plant (Family)</th>
<th>Part used</th>
<th>Extraction solvent</th>
<th>Chemical constituent</th>
<th>Animal Model</th>
<th>Ulcer creating agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Alstonia scholaris</em> (Apocynaceae)</td>
<td>Bark</td>
<td>Ethanolic extract</td>
<td>Alkaloids, coumarins, flavonoids, philobatamin, reducing sugars, simple phenolic, steroids, saponins and tannins</td>
<td>Male Albino rats</td>
<td>Pylorus ligation model</td>
</tr>
<tr>
<td>2</td>
<td><em>Anacardium occidentale</em> (Anacardiaceae)</td>
<td>Leaves</td>
<td>Hydroethanolic extract</td>
<td>Catechins</td>
<td>Rat</td>
<td>Pylorus ligation HCl ethanol</td>
</tr>
<tr>
<td>3</td>
<td><em>Asparagus racemosus</em> (Asparagaceae)</td>
<td>Roots</td>
<td>Methanolic extract</td>
<td>Shatavarin, flavonoid</td>
<td>Male Albino rats</td>
<td>Indomethacin</td>
</tr>
<tr>
<td>4</td>
<td><em>Azadirachta indica</em> (Meliaceae)</td>
<td>Leaves</td>
<td>Aqueous extract</td>
<td>Flavonoids, tannins, carbohydrates, and proteins</td>
<td>Rat</td>
<td>Indomethacin treated, ethanol and histamine</td>
</tr>
<tr>
<td>5</td>
<td><em>Bauhinia variegata</em> (Fabaceae)</td>
<td>Leaves</td>
<td>Aqueous extract, ethanolic extract</td>
<td>Flavonoids</td>
<td>Rat</td>
<td>Aspirin</td>
</tr>
</tbody>
</table>

**TABLE 3: MEDICINAL PLANTS HAVING ANTI-ULCER ACTIVITY**
<table>
<thead>
<tr>
<th></th>
<th>Plant Name</th>
<th>Part Used</th>
<th>Solvent</th>
<th>Compound(s)</th>
<th>Animal</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td><em>Boswellia serrata</em> (Burseraceae)</td>
<td>Bark</td>
<td>Petroleum ether</td>
<td>squalene, polyyprenol, β-sitosterol, lutein, and β-carotene</td>
<td>Albino rat</td>
<td>Aspirin</td>
</tr>
<tr>
<td>7</td>
<td><em>Butea foandas</em> (Fabaceae)</td>
<td>Leaves</td>
<td>Chloroform and ethanolic extract</td>
<td>Butrin, flavonoids</td>
<td>Rat</td>
<td>Hydrochloric acid</td>
</tr>
<tr>
<td>8</td>
<td><em>Cucurbita pepo</em> (Cucurbitaceae)</td>
<td>Seed</td>
<td>Methanolic extract</td>
<td>Clycoside terpenoids cucurbitacian Flavonoids</td>
<td>Albino Rats</td>
<td>Pylorus ligation</td>
</tr>
<tr>
<td>9</td>
<td><em>Cynodon dactylon</em> (Poaceae)</td>
<td>Aerial parts</td>
<td>Alcoholic extract</td>
<td>Quercetin</td>
<td>Rat</td>
<td>Cold resistance and pylorus ligation</td>
</tr>
<tr>
<td>10</td>
<td><em>Eucalyptus maculate</em> (Myrtaceae)</td>
<td>Leaves</td>
<td>Methanolic extract</td>
<td>Genistin, luteolin-7-glycoside Flavonoids, glabra</td>
<td>Swiss mice</td>
<td>Water immersion and acetic acid-induced ulcer</td>
</tr>
<tr>
<td>11</td>
<td><em>Genista rumelica</em> (Fabaceae)</td>
<td>Whole plant</td>
<td>Methanolic extract</td>
<td>Flavonoids, anthocyanins</td>
<td>Rat</td>
<td>Aspirin and ethanol-induced</td>
</tr>
<tr>
<td>12</td>
<td><em>Glycyrriza glabra</em> (Fabaceae)</td>
<td>Whole plant dried roots and rhizomes</td>
<td>70% v/v ethanol extract</td>
<td>Alkaloids, flavonoids, saponin, tannins, zeatin, quercetin, kaempferol, and terpenoid</td>
<td>Rat</td>
<td>Aspirin and ethanol</td>
</tr>
<tr>
<td>13</td>
<td><em>Hibiscus rosa</em> (Malvaceae)</td>
<td>Leaves</td>
<td>Methanolic extract</td>
<td>Flavonoids, anthocyanins</td>
<td>Rat</td>
<td>Hydrochloric acid, Indomethacin</td>
</tr>
<tr>
<td>14</td>
<td><em>Moringa oleifera</em> (Moringaceae)</td>
<td>Leaves</td>
<td>Alcoholic extract</td>
<td>Alkaloids, flavonoids, saponin, tannins, zeatin, quercetin, kaempferol, and terpenoid</td>
<td>Rat</td>
<td>Aspirin and ethanol</td>
</tr>
<tr>
<td>15</td>
<td><em>Murrya koenigii</em> (Rutaceae)</td>
<td>Root stem and leaves</td>
<td>Methanolic extract</td>
<td>Monoterpenes, monoterpenne hydrocarbons sesquiterpenes</td>
<td>Albino Rat</td>
<td>Pylorus ligation</td>
</tr>
<tr>
<td>16</td>
<td><em>Ocimum sanctum</em> (Lamiaceae)</td>
<td>Leaves</td>
<td>Alcoholic extract</td>
<td>Alkaloids, tannins, saponins, flavonoids (Apigenin)</td>
<td>Albino rat</td>
<td>Aspirin and ethanol</td>
</tr>
<tr>
<td>17</td>
<td><em>Pycnanthus angolensis</em> (Myristicaceae)</td>
<td>Bark</td>
<td>Ethanolic extract</td>
<td>Flavanones-genkwainin, 8 hydroxykanzakiflavone-2, liguirritigenin (-)-epicatechin and (+-)-catechin</td>
<td>Male Albino Wistar rat</td>
<td>Ethanol</td>
</tr>
<tr>
<td>18</td>
<td><em>Rhammus procumbens</em> (Rhamnaceae)</td>
<td>Whole plants</td>
<td>Aqueous and ethanolic extracts</td>
<td>Kaempherol</td>
<td>Rat</td>
<td>Pylorus ligation</td>
</tr>
<tr>
<td>19</td>
<td><em>Sophora subprostrata</em> (Fabaceae)</td>
<td>Whole plants</td>
<td>Alcoholic extract</td>
<td>Sophoradin</td>
<td>Rat</td>
<td>Pylorus ligation</td>
</tr>
<tr>
<td>20</td>
<td><em>Sylbin marium</em> (Asteraceae)</td>
<td>Whole plants</td>
<td>Methanolic extract</td>
<td>Sylimarin</td>
<td>Rat</td>
<td>Ethanol, cold resistance, pylorus ligation</td>
</tr>
</tbody>
</table>

Some Important Flavonoids having Very Good Hepatoprotective and Anti Ulcer Activity:

**Luteolin**: Luteolin (3’, 4’, 5, 7-tetrahydroxy-flavone) is a natural flavonoid class of compound. It was isolated from the various plant, *Reseda luteola* is one of them. The general appearance of luteolin is a just like yellow microcrystalline shape. Luteolin is now becoming very important herbal drug uses for various type of disease including the life-threatening disease cancer.

From the various study, it has clarified that there is a relation between the oxidative stress and antioxidant in the liver. When human beings are suffering from free oxygen radical, a complex defense system is activated. Here, luteolin has strong superoxide radical scavenging properties. [Fig. 1](image)

**FIG. 1: CHEMICAL STRUCTURE OF LUTEOLIN**
Acacetin: Acacetin is an O-methylated flavone found in *Robiniapseudo acacia*. From the previous experiment it was cleared that acacetin is effective in the hepatic disorder of rat which was caused by carbon tetrachloride-induced 94 Fig. 2.

![Chemical Structure of Acacetin](image)

**FIG. 2: CHEMICAL STRUCTURE OF ACACETIN**

Apigenin: Apigenin (4′, 5, 7-trihydroxyflavone), obtained from many plants. It belongs to the flavones class. It is the aglycone part of the glycoside. Apigenin is the yellow crystalline solid. From the previous study, it was found that apigenin has very good antiulcer activity 95 Fig. 3.

![Chemical Structure of Apigenin](image)

**FIG. 3: CHEMICAL STRUCTURE OF APIGENIN**

Silymarin: Silymarin is the unique flavanoids complex - containing silybin, silydianin and silicristin-that is the derivative from the milk thistle plant 96. Now a day role of oxidative free radicals has been implicated in mediating cold-restraint stress. Antioxidant bioflavonoid silymarin has a significant role in the acute cold-restraint stress model of gastric ulceration. Oral treatment with silymarin was found to be effective in the prevention of gastric ulceration induced by cold-restraint stress, in rats 97 Fig. 4.

![Chemical Structure of Silymarin](image)

**FIG. 4: CHEMICAL STRUCTURE OF SILYMARIN**

Kaempferol: Kaempferol is a natural flavonol found from various plants. The appearance of kaempferol is like a yellow crystalline solid. The melting point of kaempferol is 276 - 278 °C (529 - 532 °F). It is slightly soluble in water and highly soluble in hot ethanol, ethers, and DMSO. Kaempferol has a great antioxidant activity, reduce the free radical in our body 97 Fig. 5.

![Chemical Structure of Kaempferol](image)

**FIG. 5: CHEMICAL STRUCTURE OF KAPEMPEROL**

Salvigenin: Salvigenin was isolation from *Dorema glabrum*. Salvigenin was found to possess potent free radical scavenging activity. It was also found that this moiety shows the hepatoprotective activity in acetaminophen (250 mg/kg, i.p) induced liver damage in Swiss albino mice. Salvage in has shown its important on augmentation of antitumor immunity and also the regress the tumor tissues in a mouse model of breast cancer 98, 99 Fig. 6.

![Chemical Structure of Salvigenin](image)

**FIG. 6: CHEMICAL STRUCTURE OF SALVIGENIN**

Quercetin: Quercetin is a flavonoid, found in many fruits, vegetables, leaves, and grains. It has broad biopharmacological effects, such as hepatoprotective effects, antioxidant and free radical scavenging activity 100. Quercetin inhibit the cytotoxicity effect of oxidized LDL 101 Fig. 7.

![Chemical Structure of Quercetin](image)

**FIG. 7: CHEMICAL STRUCTURE OF QUERCETIN**
CONCLUSION: Hepatoprotective and antiulcer effect of plants’ extract and isolated compounds are generally polyphenolic compounds, alkaloids, terpenoids, phytosterols, coumarins, etc. Among all the other phytoconstituents flavonoid play a significant role as hepatoprotective and antiulcer agents. As a result, now a day flavonoids get very important in the field of phytochemistry. Flavonoids, act as anti-lipoperoxidant agents, antioxidant, and it also has a significant role to reduce the free radical, which are helpful for hepatoprotection.

Flavonoid effectively can reduce body level of serum level such as alanine aminotransferase (ALT) and serum glutamic-oxalocetic transaminase AST, gamma-glutamyltranspeptidase (GGT), thiobarbituric acid-reactive substances (TBARS) tissue, conjugated dienes, lipid hydro-peroxides, protein carbonyl content, bilirubin, ALP, lactate dehydrogenase (LDH).

Flavonoids have a gastric anti secretary and mucoprotective activity. Also, out of several leads obtained from plants containing potential hepatoprotective and antiulcer agents, silymarin, kaempferol, quercetin, apigenin, salvigenin, luteolin have been established to have potent hepatoprotective and antiulcer properties. Silymarin is very much effective on treatment of alcohol-associated liver disease, hepatitis. Polyphenolic flavonoids can protect cells against the injury due to oxidation of low-density lipoproteins.

Despite inspiring data on the possibility of discoveries in the future, evidence on treatment of peptic ulcer hepatitis or other chronic liver diseases by natural medications is not sufficient. Therefore, medications discovered from natural sources should recommended for conducted more clinical trials. More confidence, better training and little bit awareness for the natural medicine are necessary for of both patients and physicians.

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CONFLICT OF INTEREST: The authors declare that there is no conflict of interest regarding this study.

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