INTRODUCTION

Medicinal herbs are significant source of pharmaceutical drugs. Alternative systems of medicine viz. Ayurveda, siddha, and traditional Chinese medicines have become more popular in recent years. Medicinal plants have provided a good sources of a wide variety of compounds, such as phenolic compounds, nitrogen, vitamins, terpenoids and some other secondary metabolites, which are rich in valuable bioactivities, eg., antioxidants, anti-inflammatory, antitumor, antibacterial activities. Medicinal plants have become the main object of chemists, biochemist, and pharmaceutics. Their research play an important role of discovering and developing new drug that hopefully have more effective and no side actions like most modern drugs. Malhotra et.al, Maridas et. al. (2005)

Liver is the heaviest organ in the human body, weighing about 1.4 kg in an average adult, and the skin is the second largest organ of the body. It is one of the largest organ in human body and the chief site for intense metabolism and excretion. So it is a surprising role in the maintenance, performance and regulating homeostasis of the body. It is involved with almost all the biochemical pathways to growth, fight against disease, nutrient supply, energy provision and reproduction. The major functions of the liver are carbohydrate, protein and fat metabolism, detoxification, secretion of bile and storage of vitamins. Ansar, et. al. (2010), Rates et. al. (2001). Thus, to maintain a healthy liver is a crucial factor for overall health and well being. But it is continuously and variedly exposed to environmental toxins, and abused by poor drug habits and alcohol and prescribed & over the counter drug which can eventually lead to various liver ailment like hepatitis, cirrhosis and alcoholic liver diseases. Thus liver diseases are some of the fatal diseases in the world today. They pose a serious challenge to international public health. Modern medicines have little to offer for alleviation of hepatic disease and it is chiefly the plant based preparations which are employed for their treatment of liver disorders. But there are not much drug available for the treatment of liver disorders. Therefore, many folk remedies from plant origin are tested for its potential antioxidants and Hepatoprotective liver damage in experimental animal model.

Drug induced is a major health problem that accounts for more than 50% of acute liver failure, including hepatotoxicity caused by other drugs (13%). Drug induced liver injury can
affect both parenchymal and nonparenchymal cells of the liver, leading to a wide variety of pathological conditions, including acute and chronic hepatocellular hepatitis, fibrosis/cirrhosis, cholestasis, steatosis, as well as sinusoidal hepatocellular hepatic artery/vein damage. The predominant forms of drug-induced liver injury include acute hepatitis, Cholestasis, and a mixed pattern. TWI (1992), Vishnu et.al. (2010), Holt et. al.(2006)

_Silybum marianum, Picrorhiza kurroa, Andrographis paniculata, Phyllanthus niruri, and Eclipta alba_ are proven Hepatoprotective medicinal herbs, which have shows genuine utility in liver disorders. These plants are used widely in hepatoprotective preparations and extensive studies have been done on them. Traditionally _Taraxacum officinale_ has been used as a remedy for jaundice and other disorders of the liver and gallbladder, and as a remedy for counteracting water retention. Generally, the roots of the plant have the most activity regarding the liver and gallbladder. Oral administration of extract from the flow of bile, Bitter constituents like taraxecerin and taraxcin are active constituents of the medicinal herb. _Cichorium intybus_ is a popular Ayurvedic remedy for the treatment of liver diseases. It is commonly known as kasni and is part of polyherbal formulation used in treatment of liver diseases. In mice, liver protection was observed at various doses of _Cichorium intybus_ but optimum protection was seen with a dose of 75 mg/kg given 30 minutes after CCl₄ intoxication. Therefore, several herbs and herbal formulation claimed have possess beneficial activity in treating hepatic disorder. Joshi et. al. (2007), Md. Ahsan et. al. (2009)

**Plant Profile:-**

1) _Cassia Javanica (Fabaceae)_ Kirtikar et. al. (2006), Hau-yew et. al. (2006), Mastur et. al. (2006).

**Botanical Name:** _Cassia Javanica Linn._

**Family:** Fabaceae

**Vernacular Names:**

Eng.: Apple blossom senna, javanise cassia.

Hindi.: Java-ki-rani

Mar.: Mazeli.

Tam.: Konne, Vakai.
**Botanical description:** – *Cassia Javanica* is small or medium sized tree with widely spreading horizontal branched and showy blossoms. Bark smooth, brownish grey. Leaves paripinnate with 5-15 pairs of leaflet, petioles 1.5-4.0 cm long, leaflets are elliptical, ovate to oblong. Flowers bright rose or pink, fading to white, with red sepals, in elongated bracteates corymbs. Pods are cylindrical, dark brown, smooth, 45-60 cm long, flesh dry. The heartwood is yellow to brown, moderately hard, heavy and coarse texture. The sap wood is perishable.

**Distribution:** - It is native to java, introduced into Indian gardens, found in and around central India and also planted for shade.

**Chemical constituents:** -
Seeds: seeds contains chrysophanol, physcion, two new antroquinone have been reported earlier.
Bark: The root bark contains quercetin and 2 new leucoanthocyanins isolated.
Leaves: The leaves contains new flavones rhamnoside, Javanine.

**Traditional Uses:** -
The pods are used as medicinally as a substitute for *cassia fistula*. They are use as purgative. Seeds may be useful as a source of industrial gum. In china, it is applied to treat gastric pains, cold, malaria, chickenpox and constipation. It is also used as an antimicrobial agents.

2) *Tricholepis glaberrima* (Asteraceae) Chawla, et. al. (1976), Manerikar et. al. (1978), Padashetty et.al. (2007)
The genus *Tricholepis* comprises of about 12 species most of which are trees growing in tropical Asia. It is commonly called as Brahmadandi

**Synonyms**

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<tr>
<th>Language</th>
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<tr>
<td>Bengali</td>
<td>Chhagaladandi</td>
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<td>Bombay</td>
<td>Vamanadandi</td>
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<td>Hindi</td>
<td>Brahmadandi</td>
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<td>Sanskrit</td>
<td>Ajadandi, Kantapatraphala</td>
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<td>Marathi</td>
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<td>Gujerati</td>
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<td>Phusiarun</td>
<td>Talakanto</td>
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**Plant Parts Used:** Aerial parts

**Distribution:** A stout, glabrous, annual, found in Rajasthan, Gujarat, Maharashtra, Madhya Pradesh and in hills of Karnataka.

**Description**

**Leaves:** Sessile 2.5-6.3 cm by 3-6 mm linear oblong or lanceolate, acute, entire, spinous - serrate or spinous- toothed, punctate, base of cauline. Leaves are not or rarely auricled. Midrib and nerves are very prominent beneath.

**Flower:** Florets purple, small achene’s oblong with copious, yellowish brown Pappus. Corollas 1.25-1.4 cm long, involueral bracts linear-lanceolate, aristate-acuminate, ciliolate, sub erect or slightly recurved. Style arms slender, with a ring of hairs at the base of the lobes.

**Stem:** Erect, slender and as well as branches angled and ribbed.

**Chemical Constituents**

* It contains tetrahydroxy pentacyclic triterpinoid.
* It contains trichotetrol, cyclotrichosantol, cycloeucalenol.
* It also contains betulin, spina sterol, stigma sterol, stigma-7enol and triterpinoid cycloart 23-en-3 beta-25-diol.
* Also, cyanaropicrin and guaianolides are isolated.
* It also contains quercetin -3-rutinoside.


Biological source: *Chlorophytum tuberosum*, Liliaceae

Synonyms: Khiruva in Hindi, Swetha Musli in Sanskrit, Safed Musli in Marathi, Dholi Musli in Gujarati, 

Color: White to pale white (diseaseaed or undeveloped roots shows dark brown coloration)

Odour: Slight

Taste: Mucilagenous

Size: Root size ranges from 5-8 cm in length and 3mm to 7mm in width.