REVIEW ON ZIZIPHUS OENOPLIA SHRUB IN VARIOUS ASPECT RELATED TO THEIR PHARMACOLOGICAL PROPERTIES

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ABSTRACT
Ziziphus Oenopia (L) Mill (Rhamnaceae) is an annual herb used in various traditional medicine. This review focus on different parts uses having different pharmacological aspect. In present scenario the pharmaceutical companies and government more focus on herbal medicine and their preparation which is more eco friendly and less side effect and resistance. Ziziphus Oenopia contain Alkaloid, Tannin, Saponin, Sterol, Flavanoid, Triterpenes and reducing Sugar which having different pharmacological properties that provide collective information. Ziziphus Oenopia multipurpose plant used in the treatment of Uterus inflammation, Anthelmintic, Astringent, Digestive, Stomachlegia, Healing of wound, Hyperacidity, Ascaris infection, Hepatoprotective, Headache, Immunomodulator, Antioxidant and Ulcer protective.

KEYWORDS: Medicinal plant, Antioxidant, Ulcer protective.

INTRODUCTION
Ziziphus oenopia an important shrub often found throughout the hotter part of India, Ceylon Topical asia and Australia.[1] It is distributed from Indian subcontinent through southern China and Southern East asia to northern Australia.[2, 3] Ziziphus oenopia commonly known as jackel jujube, small fruited jujuba or wild jujube in hindi known as Mokora Is a flowerin plant with a broad distribution through tropical and subtropical asia and Australasia.

MEDICINAL USES[6, 6]

<table>
<thead>
<tr>
<th>Plant Part</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bark</td>
<td>Healing Wound, Stomachache, mouth wash, Uterus inflammation</td>
</tr>
<tr>
<td>Root</td>
<td>Anthelmintic, astringent, Digestive, Stomachlegia healing of wound, Hyperacidity, Ascaris infection</td>
</tr>
<tr>
<td>Leaves</td>
<td>Dressing for wound</td>
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<tr>
<td>Barries</td>
<td>Hyperacidity, Ascaris infection, Headache</td>
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</tbody>
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Nutrient in ziziphus Oenopia-Alkalod, Aminoacids, Betulic acid, Cyclopeptides, Peptides, Flavanoids, Tannins.[7]

PHARMACOLOGICAL ACTIVITY

1.Wound Healing Activity
Wound healing activity of aqueous and alcoholic extract of fruit of Ziziphus oenopia was evaluated by excise, incision and dead space wound model on rat. The study was carried out by topical application of 5% w/w ointment of aqueous and alcoholic extract was prepared in 2% sodium alginate. The recent study on wound healing activity claim that flavanoids promote significant wound healing property. Flavanoid protect the body against reactive oxygen species.[8]

2.Angiogenic activity
The angiogenic potential of an ethanolic extract of Ziziphus oenopia was evaluated by the Chick chorioallantonic membrane (CAM) model (in –vito) in 9 days old fertilized chick egg. The tested extract was found to be increase the number of capillaries on the

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treatment CAM surface from three 9 days old fertilized chick eggs. These finding suggested that the ethanolic extract of Ziziphus oenoplia root posses significant angiogenic potential, which may be beneficial in the treatment of wound healing.[9]

3. Immunomodulator effect
Lactin are the complex and heterogenous group of carbohydrate binding protein, commonly found in all types of organisms with striking biological activities. Many anti –inflammatory synthesis medicine are available but they show many side effect. In the context anti-inflammatory compounds free from any adverse effect. The most active Lactin isolated from seeds of Ziziphus oenoplia is tested for its anti-allergic and anti-inflammatory activities.[10]

4. Anti-microbial activity
The antimicrobial activity of acetone and methonalic leaf extract from ziziphus oenoplia was tested against three gram negative bacteria ( pseudomonas putida, vibrio cholera, shigella flexneri) and two gram positive bacteria (staphylococcus aureus and Bacillus Sp.) and two fungal strain (Candida albicans and Cryptococcus neoformans) by conducting a well in agar method. Peptide and V.cholerae exhibited better resistance against the plant extracts followed by sigella flexnariand Bacillus Sp. Pathogen were ineffective against the plant extract.[11]

5. Anti-Analgesic activity
Ziziphus Oenoplia (L) Mill (Rhamnaceae), commonly known as jackal jujube, small fruited jujube or wild jujubeis a flowering plant with abroad distribution through tropical and subtropical asia and australasia. the three different solvent extract of Z.oenoplia leaf for their analgesic potential by acetic acid induced writhing experiment in swiss albino mice. All the test extracts exhibited significant analgesic activity. The methanolic extract was found to be the most potent follow from the chloroform and petroleum ether extract.[12]

6. Anthelmintic Activity
Alcoholic extract of Ziziphus oenoplia extract significantly activity against roundworm infections. Anthelminthic activity of the drug increases with increase in the concentration of ethanolic extract of the root powder of Ziziphus oenoplia in comparison with the standered drug Albendazole. The time taken for the paralysis and death of the earthworm by the ethanolic extract is found to be desirable.[13]

7. Antioxidant Activity
Ziziphus Oenoplia (L) Mill be a potential natural source of anti-oxidant and could have greater importance as therapeutic agent in preventing or slowing oxidative stress related degenerative disease. The DPPH (1, 1 diphenyl 1, 2 picrylhydrazyl has been used to evaluate the antioxidant activity of plant. It has been recognized that alkaloid and flavanoid shows anti-oxidant property and their effect on human nutrients and health care. Mechanism of action of Alkaloid are through inhibition of peroxidation and flavanoid through scavenging activity.[14]

8. Anti-diarrhoeal activity
Ziziphus Oenoplia (L) Mill family (Rhamnaceae) is an annual herb that is used in the traditional medicine of Iran for treating stomach and Intestinal disorder. Ziziphus Oenoplia having Antidysercric and Antidiroreal properties. they were found to be certain alkaloid, saponins, steroids, and Triterpenesand reducing agent. Methanolic extract of Ziziphus Oenoplia root showed significant anti-diarroheal activity comparable withthat of the Standard Drug Loperamide.[15]

9. Hepatoprotective activity
Ziziphus Oenoplia (L) Mill liver function by decreasing the Serum GOT, GPT, and alkaline phosphatase level in hepatotoxic rat. Treatment with ethanolic extract of Ziziphus Oenoplia reduced the serum ALP as well as total Bilirubin level.[16]

10. Anti-Ulcer Activity
The indomethacin induced ulcer is mediated through tissue damage by the free radical which are generated free from the conversion of the hydroxyl fatty acids which are in turn generated from the degeneration of mast cells and generalized lipid peri-oxidation accompanying cell damage. Total alcoholic extract and ethanolic fraction inhibit the ulcer index. This may be due to increase in the prostaglandin synthesis, decrease in acid secretion and back diffusion of H+.[17]

CONCLUSION
The whole plant has its own medicinal value. Ziziphus oenoplia has the wide range of pharmacological activity. Significant work has been done on their pharmacological activities Ziziphus oenoplia reveals the presence of Alkaloid, Flavanoid, Triterpenes which could attribute to the medicinal use.

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