INTRODUCTION
The history of medicine dates back perhaps to the origin of human civilization. From the earliest times mankind has used plants in an attempt to cure diseases and relieve their sufferings. Primitive people in all ages have had some knowledge of medicinal plants. Most savage people believed that diseases were due to the presence of evil spirits in the body and could drive by the use of disagreeable substances found in nature.

Plants have been the basis of many traditional medicines throughout the world for thousands of years and continue to provide new remedies to mankind. Plants have been one of the important sources of medicines since the beginning of human civilization. The recent resurgence of plant medicines resulted from several factors, such as the effectiveness of plant medicines and lesser side effects compared with modern medicines. Indigenous herbs are used as remedies against various diseases in the traditional systems of medicine or in ethno medical practices. For the past few decades, compounds from natural sources have been gaining importance because of the vast chemical diversity they offer. This has led to a phenomenal increase in the demand for herbal medicine in the last 2 decades. They are relatively safe, easily available, and affordable to the masses. These drugs have given important lead in drug research, resulting in the discovery of novel molecules.

Asthma is a disease of the human respiratory system in which the airways constrict and become inflamed, swollen and breathing become difficult. The term asthma actually comes from the Greek word *panos*, which means to pant or to breathe with an open mouth. In Ayurveda, it is considered to originate from the affliction of the stomach and other parts of the gastrointestinal tract. In most of the cases, therefore, either in the beginning of the disease or before each attack, the patient suffers from indigestion, constipation or even diarrhea. The seat of manifestation of the disease is lungs (Dash, 2001).

*Achyranthes aspera* L. (Latjeera) is an erect or procumbent, annual or perennial herb of about 1-2 meter in height, often with a woody base. Stems angular, ribbed, simple or branched from the base, often with tinged purple colour, branches terete or absolutely quadrangular, striate, pubescent, leaves thick, 3.8–6.3X22.5–4.5 cm, ovate–elliptic or obovate–rounded, finely and softly pubescent on both sides, entire, petiolate, petiole 6–20 mm long, flowers greenish white, numerous in axillary or terminal spikes up to 75 cm long, seeds subcylindric, truncate at the apex, rounded at the base, reddish brown.

MATERIALS AND METHODS
Plant material of *Achyranthes aspera* L. of family Moraceae was collected from the local villages of Ratlam district. The plant was identified and authenticated by the taxonomist of botany department of Bherulal Patidar Govt. P.G. College, Mhow (M.P.). A voucher specimen of the plant material was procured in the herbarium data sheet of the laboratory. The plant material was washed thoroughly with water and then air dried in shade at room temperature 25 ± 2°C for more than 15 days. The air dried plant material was grinded to
powder about 40 – 60 mesh size. The 50gm of the powdered material was loaded into soxhlet apparatus separately for extraction with the solvent of increasing order of polarity (n-Hexane, Chloroform and Methanol). The extract was filtered through Whatman’s filter paper. Then the crude extract was concentrated in the vacuum rotary evaporator. The crude extract obtained from plant was applied in asthmatic rats and stabilization of mast cells was observed.

**OBSERVATION AND RESULTS**

In the present study, anti-histaminic or mast cell stabilizing activity was evaluated using active fractions of *Achyranthes aspera* in anaphylactic Wistar albino rats. Mast cells play a crucial role in the development of many physiological changes during allergic conditions of asthma. When the foreign particles come in contact of mast cells, it trigger number of dramatic actions in the mast cells because they work as antigens. During dramatic actions mast cells release variety of chemicals like histamine that is a vasodilator which dilates blood vessels in the body. Another is serotonin which constricts blood vessels. Heparin is an anticoagulant but it doesn’t play role in asthmatic conditions. After histamine, leukotrienes and other substances also play important role in allergic and asthmatic conditions. However, body always develops immunity against antigen through increasing the production of antibody. Immunoglobulin E (IgE) is an antibody which always binds histaminic receptors on the surface of mast cells during asthma and allergy. It is the antigen-antibody (IgE) reaction which controls the mast cells to release histamine, leukotrienes and other substances. However, body required supportive drugs for the increment of immunity. Hence, active fractions of *Achyranthes aspera* tried for the control of asthma through inhibiting the release of histamine from mast cells which is possible to stabilize the mast cells by using selected plant extract purified active fractions. For the anti-histaminic activity, all the groups were sensitized by injecting subcutaneously 0.5ml of 2% Alum along with 0.5 ml of triple antigen containing 20,000 million *Bordetella pertussis* bacteria. The sensitized rats were divided into four groups. Group I was served as control and have received water with ad-libitum but not treated and sacrificed for the observation of mast cells which were found 15.50 ± 2% intact and 88.20 ± 2 % disrupted. Mast cells were observed carefully and percentage of intact and disrupted mast cells were calculated. Table below showed the effect of active fractions of *Achyranthes aspera* extract on sensitized rats. In the II group which was treated with active fraction of *Achyranthes aspera* extract, it was noticed that when the dose of 50 mg/kg body weight were given orally with water by using oral feeding tube needle, the disruption of mast cells were found 29.80 ± 2% disrupted and intact mast cells were found 71.20 ± 2 %. In another dose of 100 mg/kg body weight for the same plant, the disruption of mast cells was found 24.70 ± 2 % and intact mast cells were found 81.10 ± 2 %. In the IV group 10 mg/kg/b. w. standard drug Dexamethasone was given intramuscularly, it was observed that the disruption of mast cells was 20.40 ± 2% and intact mast cells was found 84.50 ± 2 % which was quite similar to the maximum 100 mg/kg/b. w. herbal extract.

**CONCLUSION**

It appears that the disruption of mast cells is quite dependent. It is inversely proportional to the doses, as the doses increases, the disruption of mast cells decreases. However, intact mast cells percentage is similar to the doses, as the doses increases the intact mast cells percentage also increases. Hence, the anti-histaminic activity is directly proportional to the doses because the number of intact mast cells was found to be increasing simultaneously with increasing the doses. The result when compared to the control seem to be quite significant at p < 0.05% when student “t” test was applied. All the values obtained after the treatment by plant extract were highly significant.
Table: Effect of active fraction of plant extract on albino rats

<table>
<thead>
<tr>
<th>Group</th>
<th>Treatment</th>
<th>Dose (mg/kg b. w.)</th>
<th>Route of administration</th>
<th>Mast cells de-granulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Disrupted %</td>
</tr>
<tr>
<td>I</td>
<td>Control Sensitized</td>
<td>--</td>
<td>Not given</td>
<td>88.20±2%</td>
</tr>
<tr>
<td>II</td>
<td>Treated with Tinospora cordifolia extract</td>
<td>50</td>
<td>Orally</td>
<td>29.80±2%</td>
</tr>
<tr>
<td>III</td>
<td>Treated with Tinospora cordifolia extract</td>
<td>100</td>
<td>Orally</td>
<td>24.70±2%</td>
</tr>
<tr>
<td>IV</td>
<td>Standard drug Dexametasone</td>
<td>10</td>
<td>Intra muscular</td>
<td>20.40±2%</td>
</tr>
</tbody>
</table>

P value 0.05, * SEM

REFERENCES