SOME ABORTIFACIENT PLANTS USED BY THE TRIBAL PEOPLE OF ANDHRA PRADESH, INDIA

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SUMMARY

Plants have been used by women since the beginning of time in an attempt to control their fertility. The information was passed from mother to daughter and generation to generation. The use of abortifacient plants is a common practice among the interior tribal people of Andhra Pradesh. In the present study a list of 33 plant species belonging to 29 genera and 26 families are used as abortifacient. The study was conducted among the 33 tribal groups of Andhra Pradesh. The mode of preparation, administration and the dosage of the drugs use are collected from the tribal doctors and lady tribal doctors to terminate the early stage of pregnancy.

Key words: Abortifacient plants, Mode of preparation, Tribal people, Andhra Pradesh

1. Introduction

The Primitive man lived in close association with nature and depended on it for his survival ever since the beginning of human life. This relationship with nature influenced human life and culture. The early man acquired the knowledge of medicinal properties of many plants by trial and error. Eventually, he passed on this treasure of knowledge from one generation to other through word of mouth, as the primitive people were devoid of any written system. Among the medicinal practices abortion is the very common practice of different tribal communities of Andhra Pradesh. The physical or chemical substances, which cause abortion is known as abortifacient. During present study an attempt has been taken to collect information on abortifacient plants used by the interior tribal people of Andhra Pradesh, document them and also to evaluate their biological activity.

1.1 Study Area

Andhra Pradesh, the fourth largest state in India, is one of the 28 states of Indian union. The state lies between 12 37’ and 19 54’ North latitudes and 76 46’ and 84 46’ East longitudes, and occupies the middle portion of the Eastern half the Indian Peninsula with an area of 2, 75,068sq Km. The state has land boundaries with Orissa, Madhyapradesh on the North, Maharashtra and Karnataka on the West, Tamilnadu on the South and Sea boundary with the Bay of Bengal on the East. It has a long coast line of 968 km from Ichapuram of Srikakulam district to Sriharikota of Nellore districts.

Andhra Pradesh includes 23, districts they are grouped in to three geographically distinct regions, they are:

1. Circar or Costal districts: Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Prakasam and Nellore districts
2. Rayalaseema districts: Kurnool, Cuddapah, Ananthapur and Chittore districts.

The type of forest met with in Andhra Pradesh, as per the classification of Champion and Seth (1) are:

1. Tropical Semi-Evergreen Forests
2. Tropical Moist Deciduous Forests: It is divided in to three types.
   a. Northern Tropical Moist deciduous forests
b. South Indian Tropical Moist deciduous forests
c. Southern Tropical Moist deciduous riparian forests
3. Dry Deciduous Forests
4. Northern Mixed Dry Deciduous Forests
5. Dry Savannah Forests
6. Tropical Dry Evergreen Forests
7. Coastal Vegetation
8. Aquatic Vegetation

The tribal population of Andhra Pradesh is 50.24 lakh constitutes 33 tribal groups there are

2. Methodology

The survey was conducted in selected tribal pockets of Andhra Pradesh, the first field trip of the study area was devoted to acquaintance with the local chiefs, priests, Vaidyas, herbal doctors, headman’s and elderly people of both men and women. The methodology was adopted as described by Jain (2-4), Chadwick and Marsh (5) and Martin (6).

The present study was undertaken during the period 2005-2009. It is the outcome of intensive field trips were made in the interior tribal pockets of the forest areas of Andhra Pradesh. The information was collected from who secured from their hereditary and ancestral line. Collecting information from them is not an easy task as they treat it will be an outmost secret, which was not even shared among their community members.

While carrying out the fieldwork, help was taken from the traditional healers in the abortifacient plants information, as they are familiar with the plants around them. The gathered information was entered in the investigator filed note book. Plants specimens were collected and identified by referring to standard Flora of the Presidency of Madras, Gamble and Fischer (7), Andhra Pradesh by Pullaiah et al (8) and local floras like Srikakulam district Rolla S. Rao & Harasriramulu (9) Vizianagarm district, Venkaiah(10), Visakhapatnam district, G.V Subba Rao (11), East Godavari District, Rolla S. Rao etal (12), West Godavari district, Rolla S. Rao et al (13) Krishna district, Venkanna, et al (14), Guntur district, Ramakrishnaiah (15) etc.

3. Results

In the present study a list of 33 plant species belonging to 29 genera and 26 families were used as abortifacients. In these 33 plants, 30 belong to dicots and 3 belong to monocots respectively. It is revealed that the root part of the following 8 plants i.e Achyranthus aspera, Aerva lanata, Anonna squamosa, Aristolochia indica, Barleria crista, Phyllanthus amarus, Plumbago zeylanica and Stephania japonica, seeds of the following 7 plants like Abrus precatorius, Anonna reticulata, Bombax ceiba, Caesalpinia bonduc, carica papaya, Cascabela thevetia and Hibiscus cannabinus, whole part of the following 3 plants like Cuscuta reflexa, Drosera burmannii and Uraria logapioides, root bark of the following plants like Hibiscus rosa-sinesis, Holoptelia integrifolia and Semecarpus anacardium, fruit of the following plants like Cassia fistula and Meynia spinosa, stem of the following plants like Dendrophthoe falkata and Viscum articulatum,
tubers of the following plants like *Gloriosa superba* and *Plumbago zeylanica*, latex, rhizome, leafsap, flowerbud and haustoria of the following plants like *Carica papaya*, *Costus speciosus*, *Musa rosea*, *Hibiscus cannabinus* and *Viscum articulatum* are used as abortifacients. (Table-I). List of plant species are used for abortion are given alphabetically, name of the plant species, family, local name, part used, mode of preparation, recommended dosage and photos (Fig-1) are given for each species with a view to provide basic information for further follow up studies on abortifacient plants.

Fig. 1. Plants used for abortion
Table-I: List of plants, used part, mode of preparation and dosage

<table>
<thead>
<tr>
<th>S. No</th>
<th>Name of the plant</th>
<th>Local name</th>
<th>Family</th>
<th>Part used</th>
<th>Mode of preparation</th>
<th>Recommended Administration &amp; dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Atris prescatuus L.</td>
<td>Sriharitha</td>
<td>Fabaceae</td>
<td>Seeds</td>
<td>30 gr of fresh seed powder mixed with a glass of lukewarm water and made into paste.</td>
<td>30 gr of fresh seed powder mixed with a glass of lukewarm water and made into paste.</td>
</tr>
<tr>
<td>2</td>
<td>Atris prescatuus L.</td>
<td>Sriharitha</td>
<td>Fabaceae</td>
<td>Roots</td>
<td>30 gr of fresh root, mixed with lukewarm water and made into paste.</td>
<td>30 gr of fresh root, mixed with lukewarm water and made into paste.</td>
</tr>
<tr>
<td>3</td>
<td>Atris prescatuus L.</td>
<td>Sriharitha</td>
<td>Fabaceae</td>
<td>Whole plant</td>
<td>Fresh roots make into paste.</td>
<td>Fresh roots make into paste.</td>
</tr>
<tr>
<td>4</td>
<td>Aristolochia indica L.</td>
<td>Tippa</td>
<td>Aristolochiaceae</td>
<td>Roots</td>
<td>30 gr of fresh root made into paste by crushing.</td>
<td>30 gr of fresh root made into paste by crushing.</td>
</tr>
<tr>
<td>5</td>
<td>Aristolochia indica L.</td>
<td>Tippa</td>
<td>Aristolochiaceae</td>
<td>Whole plant</td>
<td>Fresh plant extract of about 50 gr mixed with the extract of Polygonum hydropiper seed of the same amount, 5 black pepper seeds and about 5 gr table salt. The whole mixture boiled after adding 200 ml water. The whole mixture after boiling is filtered.</td>
<td>Fresh plant extract of about 50 gr mixed with the extract of Polygonum hydropiper seed of the same amount, 5 black pepper seeds and about 5 gr table salt. The whole mixture after boiling is filtered.</td>
</tr>
<tr>
<td>6</td>
<td>Aristolochia indica L.</td>
<td>Tippa</td>
<td>Aristolochiaceae</td>
<td>Seed powder</td>
<td>about 30 gr is made into paste with about 50 gr of sugar molasses.</td>
<td>about 30 gr is made into paste with about 50 gr of sugar molasses.</td>
</tr>
<tr>
<td>7</td>
<td>Aristolochia indica L.</td>
<td>Tippa</td>
<td>Aristolochiaceae</td>
<td>Whole plant</td>
<td>Fresh plant extract of about 50 gr mixed with the extract of Polygonum hydropiper seed of the same amount, 5 black pepper seeds and about 5 gr table salt. The whole mixture boiled after adding 200 ml water. The whole mixture after boiling is filtered.</td>
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<td>8</td>
<td>Aristolochia indica L.</td>
<td>Tippa</td>
<td>Aristolochiaceae</td>
<td>Whole plant</td>
<td>Fresh plant extract of about 50 gr mixed with the extract of Polygonum hydropiper seed of the same amount, 5 black pepper seeds and about 5 gr table salt. The whole mixture boiled after adding 200 ml water. The whole mixture after boiling is filtered.</td>
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Note: The dosage and method of administration may vary depending on the specific use and condition being treated. Always consult a qualified healthcare professional for precise guidance. The information provided is for educational purposes only and is not intended to diagnose, treat, cure, or prevent any disease.
4. Discussion

In the state of Andhra Pradesh a few workers (16-20) have been worked on the abortifacient plants Caesalpinia bonduc, Dendrocalamus strictus, Dendrocalamus strictus and Holoptelia integrifolia, Plumbago indica, Plumbago zeylanica and Viscum articulatum are similar findings were reported by Rama Rao et al (16) Annona squamosa, Carica papaya, Costus speciosus, Dendrocalamus strictus and Holoptelia integrifolia. The similar findings were reported by Inyasamma (17) Annona squamosa, Caesalpinia bonduc, Costus speciosus, Dendrocalamus strictus and Holoptelia integrifolia were reported by Chandra Babu (19), Cassia fistula, Dendrocalamus strictus, Phyllanthus amarus and Plumbago zeylanica were reported by Lakshmi (20).

Among the abortifacient plants Achyranthus aspera, Aerva lanata, Ananas comosus, Annona reticulata, Aristolochia indica, Avicennia marina, Barleria crist, Bombax ceiba, Caesalpinia pulcherrima, Cuscuta reflexa, Hibiscus rosa-sinensis, Musa rosacea, Semicarpus anacardium, Stephania japonica and Uraria lagopoides species are hitherto not reported from Andhra Pradesh, hence, reported as new information. Phytochemical studies of above said plants need to be taken up to find out the exact ingredients that help in the abortion.

Acknowledgement

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