Investigation of herbas for the treatment of leucorrhoea from south west Bengal, India

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Abstract: Leucorrhoea is a very common problem among the female of reproductive age group particularly sexually active female but little research have been done in this area. It causes lot of discomfort, stress, weakness, tiredness, exhaustion, multiple aches, multiple somatic complaints and affect the sexual preferences. Due to the social stigma, the women do not disclose their gynaecological disorders even to their closest neighbours. They disclose their problems to the local herbal healers or practitioners only. Herbal healers treat these diseases using the plants which have immense medicinal potentiality. Up till now a little attention has been paid on documentation of medicinal plants used in the treatment of leucorrhoea from South West Bengal. An attempt has been made to collect the information from South West Bengal of India about the use of phytomedicine for the treatment of Leucorrhoea. The prescription of ethnomedicine were thoroughly interviewed and cross interviewed the local healers, patients, old and experienced tribal peoples regarding doses and administration. About 68 indigenous medicinal plants under 36 families of which 25 tree species, 8 shrub species and 35 herbaceous species have been recorded. The present investigation is an important thrust area to the society for the treatment of leucorrhoea and also helpful for the detailed account of the studied medicinal plant for future research to generate new phytochemicals and to formulate new bioactive compounds in the medical world.

Key words: Leucorrhoea; Traditional knowledge; Phytomedicine; South West Bengal.

INTRODUCTION

Leucorrhoea is a common disease among the women. It denots a thick whitish and yellowish vaginal discharge. The amount of vaginal discharge may increase due to vaginal infection and due to sexually transmitted infections (STIs) and the discharge may disappear or reappear time to time.¹ The common causes of this disease are excessive coitus, abortion, high parity, lower socioeconomic status, poor hygiene, faulty dietary habits, excessive work load etc.²,³ This disease is associated with bodily complaints of weakness, tiredness, exhaustion, multiple aches and multiple somatic complaints.⁴ It may cause a lot of discomfort and stress, and even affect the sexual preferences and libido. It may be mild to severe, and varies from person to person. It is mainly two types: physiological and pathological. The Physiological leucorrhoea is due to the stimulation of oestrogen. The changes in the vaginal epithelium, changes in the normal bacterial flora and pH of the vaginal secretion predispose to the leucorrhoea.⁵ In pathological leucorrhoea different pathogens like Trichomonas vaginalis, Neisseria gonorrhoea, Candida albicans are exclusively involved and some other potential agents like Ureaplasma urealyticum, Chlamydia trachomatis, candida-like organisms (CLO) and streptococci are responsible.⁶

Approximately 80% of world population in developing countries depends on traditional medicines for primary healthcare and in modern medicine too, nearly 25% are based on plant-derived drugs.⁷,⁸ Das et al. recorded the use of medicinal plants for the treatment of Gonorrhoea and syphilis in south West Bengal of India.⁹ However, no attention has been paid on documentation of plants used in the treatment of leucorrhoea.¹⁰ A little bit of work has been done in this direction in this region.¹¹

Keeping this in view, the present study was initiated with an aim to identify medicinal plants resources and traditional knowledge of tribal and non-tribal people of South West Bengal, India to treat the leucorrhoea. A synoptic account of these medicinal plants with their species, family, parts used, approximate doses in possible cases and ethno–medicinal values to cure leucorrhoea has been prepared in the present investigation.

MATERIALS AND METHODS

In order to document the utilization of indigenous medicinal plants, a sample survey was carried out during the last five years (2009-2014) in different villages and forest areas of South West Bengal, India. The Survey was carried out throughout the year to cover all the seasons and to get maximum information. Repeated enquiries were made to understand their knowledge, methods of diagnosis and treatment of this disease. Data were collected on the specific parts of the plants used, collection, method of uses of the drugs, dosage administration. The information on medicinal uses of the indigenous plants have been described after gathering information from general local people, experienced aged rural folk, traditional herbal medicine practitioners and local herbal drug sellers. Local elder, experienced tribal peoples, “Vaidyas” and “Ojhas” were interviewed and cross – interviewed following the questionnaire regarding doses and administration.¹²,¹³ The medicinal plants specimens were collected and identified with the help of authentic specimens, books, journals, floras and revisions¹⁴–¹⁶ and documented in the herbarium of Dept. of Botany, Raja N.L. Khan Women’s College and Up-to-date author citation¹⁷ was followed.
RESULTS AND DISCUSSION

The present paper deals with 68 plants species under 36 families of which 25 species belong to trees, 8 species belong to shrubs and 35 are herbs (Table 1). From the tree species the bark, leaves, seeds and roots were used. In case of herbs species the whole plant was used. The treatments do not cause any side affects. The plants are used either solely or in combination with other plants. The mode of preparation and administration was very easy and suitable. This knowledge was fully dependant on trial and error methods by the local healers and was disseminated verbally from one generation to another. This traditional knowledge was confined to few families of the area within ‘Vaidyas’ and ‘Ojhas’. They generally diagnose the disease based on symptoms told by the patients as well as based on their personal experience in treating human ailments. The methods of preparation of herbal medicine fall into four categories, like plant parts applied as paste, juice extracted from various plants parts, decoction of plant parts mixed with water and other liquids; and powder made from different plant parts.\(^{11}\)

Medicines are taken orally directly or mixed with water, milk, honey, black pepper etc. It was observed during the course of survey that most of the medicines were administered in empty stomach early in the morning and period of treatment varies from 7 to 21 days in most of the cases. Doses were measured generally in teaspoonful which varies from patient to patient depending on their age, physical health conditions and several other factors. The healers generally do not cultivate the medicinal plants but solely depend on forest based resources. The healer’s concept was purely morphological but there was no biochemical and pathological experimental information. Hence, the present study will be helpful for future phytochemical and pharmacological screening to formulate different potent drugs.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Scientific name</th>
<th>Habit</th>
<th>Family</th>
<th>Parts used</th>
<th>Mode of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abelmoschus esculentus (L.) Moench</td>
<td>Herb</td>
<td>Malvaceae</td>
<td>Seed less fruit</td>
<td>Seed less fruit taken orally with sugar.</td>
</tr>
<tr>
<td>2</td>
<td>Allhelous indicum L.</td>
<td>Herb</td>
<td>Malvaceae</td>
<td>Root</td>
<td>Root powder taken.</td>
</tr>
<tr>
<td>3</td>
<td>Acacia farnesiana (L.) Willd.</td>
<td>Tree</td>
<td>Mimosaceae</td>
<td>Pods</td>
<td>Decoction of pods is used.</td>
</tr>
<tr>
<td>4</td>
<td>Acacia nilotica Delile</td>
<td>Tree</td>
<td>Mimosaceae</td>
<td>Leaves, Bark, Gum</td>
<td>Paste of 10 gm gum and two leaves taken with cow's milk. Bark used in the form of decoction for a vaginal douche.</td>
</tr>
<tr>
<td>5</td>
<td>Adhatoda vasica Nees</td>
<td>Shrub</td>
<td>Acanthaceae</td>
<td>Root bark</td>
<td>Root bark juice is taken with honey and drunk twice daily for few days.</td>
</tr>
<tr>
<td>7</td>
<td>Ageratum conyzoides L.</td>
<td>Herb</td>
<td>Asteraceae</td>
<td>Leaves</td>
<td>Leaves paste prepared with leaves taken orally with milk. Leaves paste directly applied on vagina once in a day for one week.</td>
</tr>
<tr>
<td>8</td>
<td>Allium sativum L.</td>
<td>Herb</td>
<td>Liliaceae</td>
<td>Bulb</td>
<td>Root bark taken orally with milk.</td>
</tr>
<tr>
<td>9</td>
<td>Amaranthus spinosus L.</td>
<td>Herb</td>
<td>Amaranthaceae</td>
<td>Roots</td>
<td>Fresh juice of the root (two teaspoon full) is slightly warmed and is given twice daily.</td>
</tr>
<tr>
<td>10</td>
<td>Asparagus racemosus Wild.</td>
<td>Herb</td>
<td>Liliaceae</td>
<td>Root</td>
<td>Root paste mixed with the root paste of Ankar (Alangium salviifolium), Palash (Butea monosperma), Amlaki (Emblica officinalis), Ramdantan (Smilax glycyrrhiza) and make a common paste which is given for continuous 21 days early in the morning. Paste of fresh roots of young plant mixed with unboiled cow milk (1/2) and then mixed with the paste of seven long peppers.</td>
</tr>
<tr>
<td>11</td>
<td>Bambhia madanadora Roxb.</td>
<td>Tree</td>
<td>Caesalpiniaaceae</td>
<td>Bark</td>
<td>Bark bark taken orally with milk.</td>
</tr>
<tr>
<td>12</td>
<td>Bambhia potaniana L.</td>
<td>Tree</td>
<td>Caesalpiniaaceae</td>
<td>Bark</td>
<td>Bark bark taken orally with milk.</td>
</tr>
<tr>
<td>13</td>
<td>Beborosaria diffusa L.</td>
<td>Herb</td>
<td>Nyctaginaceae</td>
<td>Whole plant</td>
<td>Decoction of plant (15ml) is given once a day in the early morning for fifteen days. Paste of fresh roots of young plant mixed with unboiled cow milk (1/2) and then mixed with the paste of seven long peppers.</td>
</tr>
<tr>
<td>14</td>
<td>Bombac colba L.</td>
<td>Tree</td>
<td>Bombacaceae</td>
<td>Root</td>
<td>Root paste mixed with the root paste of Ankar (Alangium salviifolium), Palash (Butea monosperma), Amlaki (Emblica officinalis), Ramdantan (Smilax glycyrrhiza) and make a common paste which is given for continuous 21 days early in the morning. Paste of fresh roots of young plant mixed with unboiled cow milk (1/2) and then mixed with the paste of seven long peppers.</td>
</tr>
<tr>
<td>15</td>
<td>Bauza mononpermus (Lam.) Taub.</td>
<td>Tree</td>
<td>Fabaceae</td>
<td>Bark, Flower, Gum</td>
<td>Powder of plant parts mixed with adequate water given early in the morning for 15 days. Leaves juice (5 ml) mixed with honey given in the early morning for continuous 7 days once a day.</td>
</tr>
<tr>
<td>16</td>
<td>Catharanthus rosus (L.) G. Don</td>
<td>Herb</td>
<td>Apocynaceae</td>
<td>Leaves</td>
<td>Leaves juice (5 ml) mixed with honey given in the early morning for continuous 7 days once a day.</td>
</tr>
<tr>
<td>17</td>
<td>Clerodendrum trichomum Vent.</td>
<td>Herb</td>
<td>Verbenaceae</td>
<td>Root, Leaves</td>
<td>Two spoonful paste along with water are administered for continuous 10-15 days.</td>
</tr>
<tr>
<td>18</td>
<td>Cletoria ternatia L.</td>
<td>Herb</td>
<td>Fabaceae</td>
<td>Root</td>
<td>One tea spoonful root paste with black pepper (Piper longum) mixed in water taken in the morning. Leaf is crust and placed under sunlight, the extract is swallowed orally. The camel in the form of paste mixed with cow milk is taken.</td>
</tr>
<tr>
<td>19</td>
<td>Cocculus hirsutus (L.) Diels</td>
<td>Herb</td>
<td>Menispermacoeae</td>
<td>Leaves</td>
<td>A juice is made up with liquid endosperm, powder of sandal (Santalum album) and cumin (Cumimum cumintum) and taken orally.</td>
</tr>
<tr>
<td>20</td>
<td>Coc Jucifella L.</td>
<td>Tree</td>
<td>Arecaceae</td>
<td>Carnel, Liquid endosperm, Young bud</td>
<td>A juice is made up with liquid endosperm, powder of sandal (Santalum album) and cumin (Cumimum cumintum) and taken orally.</td>
</tr>
<tr>
<td>21</td>
<td>Commiphora wightii (Arnott.) Bhandarii</td>
<td>Shrub</td>
<td>Burseraceae</td>
<td>Latex</td>
<td>The young bud is taken orally. The latex is mixed with honey and swallowed orally.</td>
</tr>
<tr>
<td>22</td>
<td>Corrid Brahmioides Gaertn.</td>
<td>Herb</td>
<td>Amaryllidaceae</td>
<td>Roots</td>
<td>Roots are used as tonic and aphrodisiac in leucorrhoea.</td>
</tr>
</tbody>
</table>

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| No. | Scientific Name                      | Kingdom | Rank    | Common Name | flower-pollen Type | Fruit-Paste Type | Root-Paste Type | Wood-Paste Type | Juice-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | root-Paste Type | Wood-Paste Type | Juice-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | Powder-Paste Type | bark-Paste Type | Paste-Paste Type | Seed-Paste Type | 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CONCLUSION

The present study focused mainly on the rural women’s health and treatment as they are deprived off the modern medical facilities and they are generally less conscious about their health. The herbs are the best alternative and like the supernatural blessing to the very poor women of the villages but the women do not know which plants are essential for the treatment of leucorrhoea. For that reason they have to go to the local traditional healers for the treatment of this disease. If proper documentation, cultivation procedure and dosages administration of these medicinal plants are done and focused in a very lucid way to the village women it will be better for their own treatment. As there was no past scientific report regarding antimicrobial and phytochemical analysis of the recorded medicinal plants greater effort should be given on the indigenous practice right now. In this situation our investigation is much more appropriate to initiate the investigation in this direction. We hope future detail research work will open a new vistas for the formulation of new bioactive compounds in medical world for the treatment of leucorrhoea.

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REFERENCES


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