VatsakadiKwathaChurna: A Polyherbal Formulation For Diarrhea

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Abstract

Herbal medicines are significant and reliable sources for treating various infectious and non infectious diseases. It is well known that infectious diseases account for high proportion of health problem, especially in developing countries. Microorganism has developed resistance to many antibiotics and this have created immense clinical problem in the treatment of infectious disease. Vatsakadikwathachurna a polyherbal formulation which is known to be antidiarrheal. The clinical manifestations of Atisara are similar to ‘Diarrhoea’ in modern medicine which is treated with specific Antibiotics and Antispasmodics. After reviewing the properties of the vatsakadikwathachurna, we can conclude that it possesses anti diarrheal properties and this looks promising in the treatment of diarrhea.

Keywords:-Polyherbal, diarrhoea, vatsak (kutaj)

Introduction

Diarrhoea is a common gastrointestinal disorder characterized by an increase in stool frequency and a change in stool consistency.\(^1\) It remains one of the major health threats to populations in the tropical and subtropical poor countries. In developing countries, the majority of people living in rural areas almost exclusively use traditional medicines in treating all sorts of diseases including diarrhoea.\(^2\) Antibiotic resistance has become a global concern\(^3\). The clinical efficacy of many existing antibiotics is being threatened by the emergence of multidrug-resistant pathogens\(^4\).
Complementary system of medicine such as Ayurveda, Siddha, Unanai and Chinese medicine have gained its popularity in recent years. Vatsakadikwathachurna possesses antidiarrheal properties mentioned in the text.

**Method of preparation vatsakadikwatha churna**

Following ingredients are used for the preparation of Vatsakadikwathachurna

<table>
<thead>
<tr>
<th>S.No</th>
<th>Ingredients</th>
<th>Latin name</th>
<th>Family</th>
<th>Part used</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vatsaka</td>
<td><em>Holarrhena antidysenterica</em></td>
<td>Apoynaceae</td>
<td>St. bk.</td>
<td>1 part</td>
</tr>
<tr>
<td>2</td>
<td>Ativisha</td>
<td><em>Aconitum heterophyllum</em></td>
<td>Ranunculaceae</td>
<td>Rt.</td>
<td>1 part</td>
</tr>
<tr>
<td>3</td>
<td>Bilva</td>
<td><em>Aegle marmelos</em></td>
<td>Rutaceae</td>
<td>Fr. P</td>
<td>1 part</td>
</tr>
<tr>
<td>4</td>
<td>Udichya</td>
<td><em>Pavoniaodorata</em></td>
<td>Malvaceae</td>
<td>Rt.</td>
<td>1 part</td>
</tr>
<tr>
<td>5</td>
<td>Musta</td>
<td><em>Cyperus rotundus</em></td>
<td>Cyperaceae</td>
<td>Rz.</td>
<td>1 part</td>
</tr>
</tbody>
</table>

Rt.- root, St.bk.- stem bark, Fr. P- fruit pulp, Rz.- rhizome

The coarse powder of all the ingredients are prepared separately and mixed together in the prescribed quantity.

Ingredients of Vatsakadikwathachurna and their pharmacological and therapeutic properties

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the drug</th>
<th>Rasadipanchak &amp; Ayurvedic properties</th>
<th>Pharmacological properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vatsaka (Kutaj)</td>
<td><em>Rasa</em> – katu, kashaya</td>
<td>Antidiarrheal(^{9,10,11})</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Guna</em> – ruksha</td>
<td>Antibacterial(^{12,13})</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Virya</em> – sheeta</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Rogaghanta</em> – arsha, atisar, kushta, jwara</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Karma</em> – agnideepka, pachaka(^{8})</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ativisha</td>
<td><em>Rasa</em> – katu, tikta</td>
<td>Antidiarrheal(^{15}).</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Guna</em> – ushna</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Virya</em> – ushna</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Rogaghanta</em> – atisara, ama, visha, vamana, krimiroga</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Karma</em> – agnideepka, pachaka(^{14})</td>
<td></td>
</tr>
</tbody>
</table>
Discussion

According to one study, Kutajand bark is capable to kill free living amoebae and it also kills *Entamoeba histolytica* in the dysenteric stools of experimentally infected kittens and the herb is markedly lethal to the flagellate protozoon. The strong antibacterial activity of the Holarrhena antidysenterica extract inhibits growth of enteropathogenic *Escherichia coli* (EPEC) bacteria strains. The EPEC strains are notorious for resisting the activities of multiple antibiotic drugs. The effectiveness of Holarrhena antidysenterica in treating diarrhea induced by EPEC strains makes it an effective alternative to conventional antibiotic drugs used for treating dysentery. The medicinal plant could also inhibit formation of bloody stools, a symptom of enterohaemorrhagic *Escherichia coli* (EHEC) infection. Studies suggest that Holarrhena

| 3 | Bilva | Rasa – katu, tikta, kashaya  
Guna- snigdha, ushna  
Virya- ushna  
Rogaghanta- atisara, pravahika, grahni, Madumeha, karnaroga, vataroga, kamla, arsha, shotha, jwara  
Karma- agnideepka, pachaka, grahi | Antidiarrheal  
Antibacterial  
Antiinflammatory |
| 4 | udichya | Guna- ruksha, laghu  
Virya- sheeta  
Rogaghanta- atisara, ama, aruchi, hrulasa, Visarpa, hrudyaroga,  
Karma- agnideepka, pachaka | Antibacterial |
| 5 | Musta | Rasa – katu, tikta, kashaya  
Virya- sheeta  
Rogaghanta- jwara, aruchi, trisha, kapha pitta nashakrimihar  
Karma- agnideepka, pachaka, grahi, swedajanaka | Antidiarrheal  
Antispasmodic |
antidysenterica prevents and treats EPEC infections by preventing bacterial adhesion. The anti-adherence effect of the alkaloids of the herb provides a rational basis for treating diarrhea induced by EPEC infection. Holarrhena antidysenterica is also effective in treating multi-drug resistant Salmonella infection, which is an important cause of severe enteric diseases worldwide. Most ingredients have katu, tikta, kashaya rasa, and Kashaya dominant drugs can be incorporated in the subsequent phases which facilitates for Shoshana (absorption) of liquefied or detoxified, a state produced by Tikta Rasa and Katu Rasa. The crude extract of Bilwa has shown antioxidant, effective in experimental models of irritable bowel syndrome and physiological diarrhea. Udichya has shown the antimicrobial activity. Musta has produced its antidiarrhoeal effect through decreasing intestinal secretions and antispasmodic effect by inhibiting the intestinal motility.

Conclusion
Pharmacological activities of ingredients of the vatsakadikwathachurna has shown its use as, antidiarrheal, antimicrobial, antibacterial, anti-inflammatory and antispasmodic qualities. So this review helps the researcher to explore this formulations for pharmacological activities of the vatsakadikwathachurna.

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