Traditional Persian Medicine’s Measures for Treatment of Childhood Constipation

AMIR HOSSEIN BABAEI¹, SARA SADAT NABAVIZADEH¹, MAJID NIMROUZI²

ABSTRACT

The present study aimed to assess the efficacy of behavior modification and some herbal drugs based on traditional Persian medicine in the treatment of childhood constipation. The children had not responded to conventional medications and were free of any medication. They fulfilled the Rome III criteria for functional constipation. All patients received behavior modification. In some cases, based on other complaints, D. Sophia, F. Carica, and/or Oxymel was added to their therapeutic regimen. The patients were followed up for one month and were evaluated regarding outcomes and side effects. The mean age of patients was 5 (± 2.7), and four patients were girls. After one month, improvement in stool consistency and frequency was observed in four cases. However, two patients showed no noticeable improvements in constipation. Moreover, no side effects were reported in the patients after one month. It seems that behavior modification and oxymel, F. Carica, and D. Sophia could be the best alternative treatments for childhood constipation. The present study aims to report six constipated children treated with behavior modification and some herbal drugs based on TPM and to determine the extent of improvement in their symptoms.

INTRODUCTION

The prevalence of constipation is unclear, but it has been estimated to be 1 to 30% among children. It is also the second cause of all referrals to pediatricians¹. The main causes of constipation include endocrine and metabolic diseases, lack of water and fiber intake, excessive dairy consumption, and not having adequate physical activity². For treatment of constipation, physicians prescribe dietary fibers and laxative to increase stool water, reduce its consistency, and increase colon motility³. Since thousand years ago, people have used herbal drugs to relieve their diseases. Despite notable advances in modern medicine, herbal medications play a significant role in health worldwide⁴. Regarding lower price, lower side effects, and more accessibility, approximately 70-80% of world population, mainly in developing countries, trust in non-conventional medications, especially herbal remedies⁵⁻⁶. Traditional Persian Medicine (TPM) has also recommended the massage with oil, Senna, Cascara, aloe, Rhubarb, Terminalia chebula, Citrullus colocynthis, and Ficus carica (F. Carica) for treatment of constipation⁷⁻⁸. Many studies have shown the promising effects of these strategies. Indeed, some studies have revealed that ginger, Flixweed (Descurainia Sophia L.) (D. Sophia), Oxymel, and F. Carica could be the best alternative treatments for constipation by significantly decreasing the colon passage time⁹.

1 Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran
2 Department of Traditional Persian Medicine, School of Traditional Medicine, Shiraz University of Medical Sciences, Shiraz, Iran.
Correspondence to: Majid Nimrouzi, Email: mnimrouzi@yahoo.com, Tel. +98-917-7032019

The present study aims to report six constipated children treated with behavior modification and some herbal drugs based on TPM and to determine the extent of improvement in their symptoms.

MATERIAL AND METHODS

This case series was conducted in the Department of Traditional Medicine (Mothagari clinic) of Shiraz University of Medical Sciences. The subjects included six constipated children between 2 and 12 years old. The mean age of patients was 5 (± 2.7), and four patients were girls. All children met 2 or more Rome III criteria for functional constipation (i.e., history of two or fewer defecations per week, at least one episode of fecal incontinence per week, history of retentive posturing or excessive volitional stool retention, history of painful or hard bowel movements, presence of a large fecal mass in the rectum, and history of large diameter stools that may obstruct the toilet) for at least 3 months before diagnosis. They did not report the Rome III criteria for Irritable bowel syndrome. We did not prescribe drugs for children who were suffering from mental disorders, having diseases leading to gastrointestinal problems such as Hirschsprung's disease, spina bifida occulta, hypothyroidism, cystic fibrosis, neurologic abnormalities, intestinal pseudo-obstruction, diabetes mellitus, and anorectal pathalogy. Also, they did not receive medications affecting gastrointestinal motility or underwent the gastrointestinal-related surgeries. It should be noted that all children had not responded to conventional drugs and were free of other medications at the time of the study.

All patients received behavior modification (preventive health measures according to TPM
sources) that included slow chewing of foods, drinking adequate water but not during or just after their meals, avoiding junk food and toilet training. In case of obesity, dyspepsia, abdominal skin coldness in palpation (cold diathesis), thirst, hyperactivity, and abdominal skin warmth in palpation (hot diathesis), D. Sophia or Oxymel was added to their therapeutic regimen. The patients were followed up for one month and were evaluated regarding outcomes and side effects.

**RESULTS**

After one month, four patients showed no noticeable improvements in constipation. No side effects were reported after one month. Table 1 shows the patients characteristics, complaint, treatment and outcomes after one month.

<table>
<thead>
<tr>
<th>Pt. No.</th>
<th>Age</th>
<th>Gender</th>
<th>Other complaints</th>
<th>Treatments</th>
<th>Outcomes after one month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.5</td>
<td>Female</td>
<td>Thirst and halitosis</td>
<td>Behavior modification, oxymel</td>
<td>Less thirst and oral smell, improvement in constipation</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>Female</td>
<td>Flatulence, anorexia</td>
<td>Behavior modification, D. Sophia</td>
<td>No improvement in symptoms</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Male</td>
<td>Anal fissure</td>
<td>Behavior modification, Oxymel, F. Carica</td>
<td>Anal fissure and constipation were improved</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Female</td>
<td>Halitosis, nausea, abdominal fullness</td>
<td>Behavior modification, Oxymel, D. Sophia, olive oil massage</td>
<td>No improvement in constipation, improvement in gastric disorders, improvement in drooling</td>
</tr>
<tr>
<td>5</td>
<td>5.5</td>
<td>Female</td>
<td>Thirst, drooling, flatulence, dyschezia</td>
<td>Behavior modification, Oxymel, D. Sophia</td>
<td>Improvement in constipation</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>Male</td>
<td>Anal fissure</td>
<td>Behavior modification, Oxymel</td>
<td>Anal fissure got better, improvement in constipation</td>
</tr>
</tbody>
</table>

**DISCUSSION**

This study reported six constipated children treated by TPM instructions. According to the results, herbal products, such as Oxymel, F. Carica, and D. Sophia, and behavior modification could increase defecation frequency, decrease stool consistency, and improve symptoms among the afflicted children.

Due to the sequential failure of the conventional medicine in some areas over the recent years, physicians have become interested in alternative medicine, particularly natural and safe traditional medications\(^\text{10}\). Traditional and conventional medicines are entirely different in their treatment approaches. TPM is based on humoral medicine and is more personalized compared to the conventional approaches. Personalized medicine has recently attracted much attention in conventional medicine. One related example is that traditional medicine prescribes sleeping less, doing more physical activities, and avoiding dairy products for obese constipated patients while asking thin patients to sleep more and do lower physical activities to prevent body water loss and reduce the risk of constipation\(^\text{11,12}\).

One of the most common treatments for constipation involves pharmaceutical medication and using stool softeners, stimulants, and osmotic chemical laxatives such as Lactulose\(^\text{12}\). In addition to financial issues, lactulose causes abdominal pain, bloating, and flatus that occur as a result of bacterial fermentation in the colon\(^\text{13}\). On the other hand, some studies have revealed that some herbal products, such as Senna-fiber combination, had more remarkable effects on constipation treatment in comparison to Lactulose\(^\text{14}\).

Many TPM references have also suggested that Oxymel, D. Sophia, and F. Carica were beneficial for constipation treatment. It has been mentioned in Raze-Darman that D. Sophia is the best therapeutic agent for constipation. Indeed, Oxymel and F. Carica have been introduced as the main treatments for constipation in Al-Mansuri-Fi-Teb and Canon of Medicine. Previous studies on TPM have also shown acceptable results. Nonetheless, due to lack of adequate data about the effect of TPM recommendations on constipation, the present study investigated the efficacy of TPM in constipation among children.

A randomized, double-blind, placebo-controlled trial conducted on 80 subjects for 8 weeks indicated that F. Carica paste was associated with a noticeable alleviation in constipation compared to the placebo\(^\text{9}\). Besides, our recent study in 2 to 12 years old constipated children demonstrated that D. Sophia was as effective as PEG\(^\text{15}\). Moreover, an animal model trial conducted on one healthy control group and four experimental groups of rats showed that F. Carica paste could increase stool water content and defecation frequency. A significant improvement was
also found in colon tissue thickness and mucin area. These results demonstrated that F. Carica extract had natural laxative effects on bowel movements and did not cause intestinal fermentation. Thus, it was suggested to be a great natural alternative for Lactulose. Some other studies revealed that D. Sophia seed extract could regulate jejunal contractions and be efficient in constipation treatment by surrounding and then blocking muscarinic receptors and Ca²⁺ channels.

Considering lifestyle modification, physical activity, eating habits, and even bathing habits can play a significant role in the rate of constipation and reduction of its severity. In other words, successful treatment cannot be achieved without paying attention to diet and food intake. In this context, quantity, and quality of food, well mastication, and mealtime are important in causing constipation. On the other hand, eating discipline and not eating different kinds of food in a single meal play a considerable role in preventing constipation.

CONCLUSIONS

In conclusion, the findings of the current study indicated that Oxymel, F. Carica, and D. Sophia together with behavior modification could improve constipation in the children. However, rigorous well-designed randomized clinical trials should be conducted to confirm the efficacy of these treatments and determine their side effects.

Acknowledgement: The authors are grateful to Shiraz University of Medical Sciences, Shiraz, Iran, as well as Ms. A. Keivanshekouh at the Research Improvement Center of Shiraz University of Medical Sciences for improving the use of English in the manuscript.

REFERENCES