Teb (medicine) as described by Avicenna on the opening pages of the *al-Qānūn fī al-Tibb* (*The Cannon of Medicine*) was “a science by which one learns the conditions of the human body in health and in the nonexistence of health to keep health or to bring it back”. According to *Avicenna’s Canon of Medicine* and other traditional Persian medicine (TPM) resources, the observance of the six essential qualities provides guidance to any medical intervention. These qualities include air, food and drink, physical activity and rest, sleep and wake, retention and release (the bodily functions of absorption and evacuation) as well as mood and mental states. According to Avicenna’s theory, there are different causes for diseases and ill health, and a single complaint may be linked to multiple combinations of excesses or deficiencies in these essential qualities. For example, the causes for developing constipation include mental stress, low food intake, dryness of food, low fluid intake, excessive urination, excessive sweating because of heavy exercise or hot weather (tissue dehydration), using astringent herbal medicines as well as intestinal sensory loss[1,2]. Constipation, *Ea’teghal-e-batn* or *hassr-e-batn* in TPM, is a condition defined by a patient’s inability to have a normal bowel movement, including infrequent defecation, painful defecation, or both. To maintain a healthy bowel and normal fecal evacuation, Avicenna recommends a nutrient-dense diet, including bread and lamb, as well as minimizing consumption of hot spicy food. These issues are in accordance with findings in the conventional medicine, which recommends nutrient-dense food from the major food groups (like whole grains, fruits, and vegetables) along with appropriate exercise. Living in a peaceful environment with mental relaxation may alleviate symptoms of constipation in children. According to Avicenna, children have an excess of warmth and moisture and thus they required different foods than adults for their growth and development. However, in children, the combination of high nutritional demands and immature gut puts them at the risk of developing gastrointestinal ailments such as dyspepsia and constipation. Adhering to TPM’s nutritional scheme might prevent dyspepsia and constipation in children[2].

Avicenna states that observance of these preventive measures should be the first line of treatment. These preventative measures require an identification of the...
ailment, diagnosis of the causes of the disease and recommendations for modification of diet or lifestyle. For example, numerous fruits, including unripe bananas, potato, cucumber, palm, pear and foods, which are hard to digest, were among the common causes of constipation in children\(^{[3]}\). Foods and drinks with cold temperaments, such as ice cream and pickles, are believed to be causes of constipation in obese and inactive children. The causes of constipation in thin and active children are more likely to be noncompliance with the recommended nutritional scheme and insufficient hydration\(^{[4]}.\) Making the appropriate dietary and behavioral corrections is thus the first line of treatment. Thin children should rest more and avoid activities that put them at risk of excessive dehydration\(^{[2]}.\) Obese children should have more physical activity and avoid napping and sleeping after meals. Eating dairy products with meals is not recommended for obese children\(^{[3]}.\)

Avicenna notes that children with a hot temperament are active, inattentive and prone to develop hard stool because of the excessive body heat and fluid loss\(^{[2]}.\) In adult females Dukas et al\(^{[5]}\) found that moderate physical exercise and an increase in dietary fiber could improve symptoms of constipation. Similar results have been found in children, where a high-fiber diet decreases the body fatness and has a positive effect in the treatment of childhood constipation\(^{[6]}.\) Although conflicting evidence in the literature results in no specific protocol for management of childhood constipation, increasing dietary fiber is recommended for children because of the natural laxative effect of fiber\(^{[6]}.\) As mentioned above, TPM states that fruits and high-fiber diets are efficacious in control of constipation in young adults and thin people with a warm-dry temperament, however, not a good remedy for overweight people with a cold-wet temperament. According to the *Avicenna's Canon of Medicine*, fruits and foods with high fiber increase the moisture retained in the gastrointestinal tract. For this reason, eating too much fruit may disturb the normal function of the stomach and worsen the symptoms of constipation in obese, overweight children and ones with cold temperament. However, increasing the fiber intake in thin and hot temperament children might relieve symptoms of constipation\(^{[2]}.\)

Treatment of constipation starts with a nutrient-dense diet, oil massages and then simple herbal medicines. Sweet almond, Persian manna, fig paste and flaxseed are recommended laxatives for children suffering from constipation\(^{[7]}\). Oh et al\(^{[8]}\) illustrated the efficacy of fig paste for increasing bowel movement in constipated beagles. Panthong et al\(^{[9]}\) demonstrated the laxative effect of *Tamarindus indica* L. in rats. *Muri* (a kind of drink), Rooster meat pottage and stew with tamarind are considered to be foods beneficial for children susceptible to constipation\(^{[10]}\). Abdominal massage with sweet almond oil or olive and castor oils is also prescribed for constipated children\(^{[2]}\). Studies have shown the positive effect of abdominal massage in post-surgical ileus\(^{[11,12]}\). Abdominal massage may stimulate intestinal peristalsis and increasing bowel activity in constipated patients\(^{[11]}\). Nam et al\(^{[12]}\) found that abdominal massage with aromatic oils enhanced the medical treatment of constipation in children with brain related disabilities.

Simple recommendations of TPM for treatment of constipation is safe and in accordance with some findings in conventional medicine. However, further examination and investigation with clinical trials should be done to confirm the long-term efficacy of these modalities as a complementary therapy in the management of pediatric constipation.

**Conflict of interests**

Authors of this manuscript disclose any financial or personal relationships with other people or organizations that could inappropriately influence the work.

**REFERENCES**


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