Diagnosis Protocol of Stomach Distemperament for Clinical Practice in Iranian Traditional Medicine: A Narrative Review

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Abstract

Background: In Iranian traditional medicine (ITM) stomach is the important organ in the body. Its disorders can affect other organs such as liver, heart and also can cause depression. Stomach distemperaments can cause some disorders. The purpose of this study was to provide a diagnostic method of stomach distemperament for clinical practice.

Methods: In this study authoritative ITM books such as Canon of Avicenna, Zakhirah-E-Kharazm Shahi by Hakim Esmail Jorjani, Kameel al-Sina'ah al-Tibbiyah by Ali ibn al-'Abbas al-Majusi were assessed and symptoms and signs of stomach distemperament were collected.

Results: Stomach has some normal temperament. The imbalance in temperament and humor can cause distemperments. There are 12 types of stomach distemperament and based on symptoms and signs a primary protocol is designed for diagnosis of stomach distemperament.

Conclusion: There is no available guideline for gastric distemperament diagnosis protocol. As a result, the presented protocol should be considered for use in clinical practice.

Keywords: Diagnostic protocols, Stomach, Distemperament, Iranian traditional medicine

Introduction

The stomach is an important organ in the body and it plays a vital role in digestion of foods (1-3). GI diseases are a source of substantial morbidity, mortality, and cost in the United States (4). In Iranian traditional medicine (ITM) stomach is very important organ and its disorders can affect other organs such as liver, heart and can cause depression (1, 5-9).

In ITM, physiological functions of the human body are considered to be based on main factor, known as Temperament [Mizaj] and humor (3, 10). The Arabic meaning of temperament (mizaj) is the "qualitative mixture" built from the elements (warm, cold, wet or damp, and dry and their combinations (2, 3). In ITM, Mizaj (temperament) plays a key role in preventive, therapeu-
rament, appetite is normal but digestion is weak and does not digest the food, except the gentle light. Normal dry temperament has frequent thirsty in the habit, and thirst is eliminated by little drinking and stomach fullness occurs with more amounts of water, and finally, normal wet temperament has less thirst but bears more amount of fluid without any fullness sensation (2). According to signs and symptoms, stomach temperaments are classified into normal and abnormal types. The disease state starts by distemperament (Sue-mizai), which is a change in the normal temperament of an individual, or of an organ, to a new temperament that is outside the range of normal. Thus, the state of disease in ITM is based on distemperament. There are 12 types of stomach distemperament (2, 3). Distemperant of stomach can cause some disorders such as weak digestion, gastric pain, and gastric irritation (12, 13), primary bile reflux gastritis (14) and gastric ulcer (15). Early detection of stomach dis-tumors and their treatment can prevent the occurrence of these diseases. Unfortunately, there is not any standard diagnostic protocol for diagnosis of stomach distemperament. The purpose of this study was to provide a diagnostic protocol of stomach distemperament for clinical practice.

Methods

Authoritative ITM books such as Canon of Avicenna (Ibn Sina) (16), Zakhira -Kharazm Shahi by Hakim Esmail Jorjani (3), Kamel al-Sina’ah al-Tibbiyeh by Ali ibn al-Abbas al-Majusi (17), Sharh ol Ashab Va Alamat by Hakim Nafis ibn Avaz-e-kerman (18), Exire Azam by Hakim Azam Khan cheshti (1), and Alhavi by Muhammad ibn-Zakariya al-Razi (19), Kholasat-al-hekma by Agibli Khorasani (20), were assessed and symptoms and signs of stomach distemperament were collected and based on the repetition in books and expert opinion, clinical significance and pathognomonic symptoms and signs were classified in major and minor criterias and an appendix.

Results

Stomach distemperaments, based on signs and symptoms are classified into different types; with or without humeric substance. In this study, signs, and symptoms are classified in major and minor criteria for diagnosing the stomach distemperaments (Table 1, 2).

| Table 1: Major (principal) criteria for stomach distemperament type assessment |
|---------------------------------|---------|----------------|----------------|----------------|----------------|----------------|----------------|---------|
| Symptoms                        |         | Stomach distemperament Types |         |         |         |         |         |         |         |
|                                 | Warm    | Cold            | Wet          | Dry           | Choleric       | Warm-wet with       | Phlegmatic    | Melan-cholic |
|                                 |         |                 |              |               |                | substance *         |             |           |
|                                 |         |                 |              |               |                |                    |             |           |
| Digestion                       | Strong  | Weak            | Strong        | Weak          | Weak          | Strong            | Weak          | Weak       |
| Appetit                         | Decreased (< sometimes with impatience on hunger) | Increased | *                | Mostly decreased2 Increased in extreme conditions | Moderate | Decreased (Increased in sour Phlegm) | Increased |
| Thirstiness                     | +       | -               | -             | + sometimes with Takhazhoz (splash sound after drinking) | + (for cold water) | + (without bitter or salty sensation in the mouth) | / false +3 | *         |
| Transition time                 | Rapid   | Slow            | Rapid         | Slow          | Rapid         | *                | *             | Slow       |
| Stool consistency               | *       | Wet             | Wet           | Dry           | *             | *                | *             |           |
| Tendency to                     | Bad and stinky substance, Mobaredat1 | Mobarakhat | *                | *             | *             | Hot Spice , and in viscous Phlegm tendency to Salty, spicy and sour tastes | *             |
| Hatred of                       | Mobarakhat | Mobarakhat | Wet and creamy | Yabese 5 | *      | *      | Abundant amount of food intake | *         |
| Benefit from                    | Mobarakhat | Hot Spice and administration of warm things on stomach | Low amount food intake / Yabese | Wet climate, Morabat, meat soup, Oils | * | * | Administration of warm things on stomach cardia | * |
| Disadvantage of                 | Mobarakhat | *               | Montrebat, creamy and cold water drinking and wet fruits and legume | * | * | Hot Spice | * |

1 * there not found any documents in Text books in this factor /2 (sometimes with Impatience on hunger) /3 Salty or viscous Phlegm which causes nausea and relieves with warm water / 4 temperament cooler substance like kampher / 5 temperament drier substance

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Table 2: Minor criteria (Appendix) for stomach distemperament type's assessment

| Other Symptoms | Stomach distemperament Types |
|----------------|-------------------------------|
|                | Warm | Cold | Wet | Dry | Choleric | Warm-wet with wet substance | Phlegmatic | Melancholic |
| Stomach discomfort | + (Relief with Mobaredat) | * | +/ (In case of Chronicity) | * | * | * | + (Especially before meals) |
| Burning sensation in stomach | * | * | * | * | + | * | + (sour, salty) | + (Relieved by eating) |
| Hot sensation in the stomach | * | * | * | + | + | * | + (Salty) | * |
| Regurgitation | * | * | * | * | + | * | * | * |
| Fastenulation of abdominal wall | * | * | * | * | + | * | + |
| Nausea & vomiting | * | * | + | * | + | + | + | (sour Mozaras) |
| Stool | Merari | Indigested | * | * | Choleric / Merari | * | Phlegm | * |
| Taste & smell | Taste of rotten fish | Sour (low cold) | * | * | Bitterness | Greasy sensation in the Mouth | Sour, insipidous (puspidous Phlegm) | Saltly (saltly Phlegm) | Sour tooth sensibility (Before meals) |
| Saliva | Oral temperature | * | Excessive and Foam | Excessive dryness of the mouth and tongue and a little saliva | * | Increased during starvation | Increase (while sleeping) | Dry mouth |
| Body | Tongue color | * | * | White and milky | * | * | Redness and roughness | [White and milky] | Black |
| Physique | * | * | Flabby | Skinny and Cachexia | Skinny and Cachexia | * | Flabby | [Slimness and Cachexia] |
| Color | * | Yellow / White | * | * | * | * | White | Yellow / Black |
| Pulse | * | Slow | Softness | * | * | * | * | Small / frequency |
| Other possible diseases | * | * | Dropsy | * | * | * | Dropsy | Splenomegaly / fear & obsession / (hemorrhoids & varicose veins) |

Discussion

Temperament has an important role in human body functions (21). According to ITM, stomachs have different temperament types. Each temperament type is susceptible to certain diseases (1-3). Imbalance of humors and mizaj in stomach is known as distemperaments (1-3). Distemperaments of stomach can cause symptoms such as bloating (22) belching, stomach pain (12, 23) heartburn and reflux (24). Diagnosis of distemperament can help us to predict susceptibility to some diseases such as peptic ulcer (15), IBS (23) and fatty liver (8) before the onset of illnesses. Melancholic stomach distemperament can lead stomach cancer (1-3). Therefore, with diagnosis of stomach distemperament we can decrease predisposition of diseases, illnesses, and reverse pathological process. In fact, these disorders may be prevented by suitable nutrition and lifestyle (25) and decrease the cost of diseases such as heartburn, reflux and peptic ulcer. It is clear the early diagnosis of stomach distemperament is very important, however, until now; there is no available guideline for gastric distemperament diagnosis, therefore, this protocol could be used for early diagnosis of stomach distemperament. However, the cross-sectional study was found for assessment of mizaj (temperament). They designed a questionnaire based on the mizaj identification in ITM text books -with 52 item and assessed its reliability and variability (26). The present protocol should be considered for use in clinical practice. Iranian Traditional Medicine Gastroenterology Research Committee of
Khark (ITM-GRCK) will examine the reliability and validity of these protocol in further studies and the results will be published in near future.

Conclusion

Diagnose of stomach distemperament is very important in Iranian Traditional Medicine. The present protocol is suggested for primary diagnose of stomach distemperament in clinical practice.

Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

Conflict of Interests

The authors declare that there is no conflict of interests.

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**Appendix:** (digestion status evaluation)

| Specific digestion questions | Warm | Cold | Wet | Choleric | Phlegmatic | Melancholic |
|-----------------------------|------|------|-----|----------|------------|-------------|
| Signs of weak digestion     |      |      |     |          |            |             |
| Stomach fullness 3 h after meal | *   | +    | *   | +        | *          | +           |
| Belching 3 h after meal     | Smoky/sour | Sour | *   | Smoky/stinky | Sour | *           |
| Gastric distension 3 h after meal | *   | +    | *   | +        | *          | +           |
| Stomachache 3 h after meal  | *   | +    | *   | +        | *          | +           |
| Bloating in stomach         | *   | +    | *   | +        | *          | +           |
| Rumbling, growling stomach  | *   | +    | *   | +        | *          | +           |
| Postprandial sleepiness, dizziness, headache or vertigo | * | * | * | + | * | + |
| Decrease of bloating, distension or nausea with belching | * | * | * | + | * | + |
| Sour taste sensation in starvation or after meal | Postprandial | * | * | * | * | In hunger |
| Signs of strong digestion   | Easy digestion of dense or cold foods | + | * | * | + | + |
| Rapid Spoilage of Soft, low amount and warm temperate substance | + | * | * | + | + | + |