



Basic Principles of Medicinal Herbs Used for Cardiovascular Diseases in Traditional Medicine

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Dear Editor-in-Chief

Cardiovascular diseases (CVDs) include a range of diseases that involve the heart and blood vessels, which is the first cause of morbidity and mortality worldwide. Available evidence suggests that the annual costs of care for CVDs are very high and there is a significant economic and social burden (1,2). However, current therapeutic approaches have numerous side effects that can reduce their long-term use (1), therefore, the traditional and complementary therapies, including dietary and herbal medicinal recommendations due to their beneficial effects and limited adverse effects have been considered for the management of CVDs (1-3).

According to the historical medical manuscripts, the heart diseases were a major focus of interest for traditional medicine (TM) physicians. They were familiar with CVDs and explained their clinical manifestations in details; also, they paid special attention to cardiovascular herbal medicines (1, 4, 5). In the TM textbooks, there are some basic principles about cardiovascular drug actions, including the taste, aroma, etc. (4, 5). Reviewing TM evidence showed that the effects of some tastes like sweetness, bitterness and astringency on cardiac functions and their ability to

strengthen the heart have been studied since ancient time (4, 5). Taste disorders can be considered as a risk factor for vascular diseases, actually, in patients with abnormal glucose tolerance. There is a relationship between sweet taste disorder and vascular problems; this is also indicated that an expression of taste receptors is not restricted to the oral cavity (6).

The effect of aroma on cardiac function has a longer history as well (4,5). The aroma of the drugs can powerfully strengthen the sensitive organs like liver, stomach, uterus and especially the heart. As well as aroma can influence faster than the taste. Astringent “*Qabid*” drugs, which have also aromatic properties such as cardamom (*Elettaria cardamomum* (L.) Maton) and rose (*Rosa damascena* Mill.) have cardiogenic effects (4,5). However, the mechanisms for exhilarating “*Tafrih*” rooted from the heart actions, not limited to astringency or aromatic effects of drugs.

Accumulating evidence suggested that expression of odorant receptors (ORs) have reported in several human tissues. The functional characterization of the ORs in the human heart is also demonstrated (7). Furthermore, aromatherapy can have therapeutic potential for CVD, for ex-



ample lavender aromatherapy, which has beneficial relaxation effects, may improve coronary circulation (8).

There are many herbal medicines, which have both astringent and aromatic properties recom-

mended for the management of CVDs. Some of them are introduced in Table 1.

It is particularly interesting that more evaluation of cardiovascular effects of tastes and aroma can clarify their physiological mechanisms.

Table 1: Some aromatic astringent medicinal plants suggested for CVDs in TM sources (4, 5)

	<i>Common name</i>	<i>Traditional name</i>	<i>Scientific name</i>
1	Lemongrass	Ezkher	<i>Cymbopogon olivieri</i> (Boiss.) Bor
2	Citron	Otroj	<i>Citrus medica</i> L.
3	Wormwood	Afsantin	<i>Artemisia absinthium</i> L.
4	Pear	Amrood	<i>Pyrus communis</i> L.
5	Anise	Anisoon	<i>Pimpinella anisum</i> L.
6	Iris	Irsa	<i>Iris germanica</i> L.
7	Lemon balm	Faranjameshk	<i>Melissa officinalis</i> L.
8	Apple	Toffah	<i>Malus domestica</i> Borkh.
9	Cinnamon	Darsini	<i>Cinnamomum verum</i> J. Presl.
10	Barberry	Ambarbaris	<i>Berberis vulgaris</i> L.
11	Saffron	Zafaran	<i>Crocus sativus</i> L.
12	Quince	Safarjal	<i>Cydonia oblonga</i> Mill.
13	Pistachio	Fostoq	<i>Pistacia vera</i> L.
14	Damask rose	Vard	<i>Rosa damascene</i> Mill.
15	Cardamom	Qaqolah	<i>Elettaria cardamomum</i> (L.) Maton

Conflict of interest

The authors declare that there is no conflict of interest.

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