



## Review Article

# Cancer (*Sartan*) in Unani Medicine: Understanding of Etiopathogenesis and Management Strategies in Light of Contemporary Trends

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Unani medicine represents a composite medical tradition rooted in ancient Greek humoral theory and subsequently elaborated during the medieval period by Persian, Arab and Indian scholars. Through centuries of clinical observation, pharmacology, and philosophical reasoning, this cross-cultural synthesis evolved into a structured and enduring system of medicine. The term “cancer” (crab in Latin) was introduced by the Romans, derived from Hippocrates’ *karkinos*. A comprehensive review of classical Unani texts was done to extract relevant insights on *Sartan*. In addition, contemporary literature was retrieved through systematic searches of electronic databases, including PubMed, ScienceDirect, and Google Scholar, to contextualize Unani perspectives within the framework of contemporary medicinal understanding. In Unani medicine, cancer (*Sartan*) is classified under the broader category of *Waram* (swelling). The primary etiological factor is the accumulation of *Sawdā’ Ghayr Tabrī* (abnormal black bile), resulting from pathological combustion processes. The pathogenesis is attributed to the retention and concentration of this abnormal *Sawdā* (black bile), which gradually impairs the physiological functions of the affected organ and eventually leads to *Waram* (swelling). Therapeutic approaches in Unani medicine are highly individualized, based on the patient’s temperament (*Mizāj*), the dominant humour involved, the specific organ affected, and the severity of the disease. Management typically involves the use of single herbs and compound formulations aimed at restoring humoral balance, reducing the abnormal *sawdā* (black bile), and alleviating symptoms. This review aims to provide a comprehensive description of cancer (*Sartan*) within the framework of Unani medicine, including the perspectives of Persian scholars, focusing on its pathophysiology, clinical presentation, anticancerous drugs and therapeutic principles.

**Keywords:** Anticancerous drugs, Cancer, Dietotherapy, *Sartan*, Unani medicine**Cite this article as:** Hasan F, Kumar P, Javed G, Ahmed NZ. Cancer (*sartan*) in unani medicine: understanding of etiopathogenesis and management strategies in light of contemporary trends. Arch Iran Med 2026;29(4): 249-259. doi:10.34172/aim.35463**Received:** November 20, 2025, **Revised:** March 3, 2026, **Accepted:** March 16, 2026, **ePublished:** April 1, 2026**Introduction**

Cancer is a disease of humans and other multicellular animals. It occurs when cells become abnormal and keep dividing and forming cells without control or order. All organs of the body are made up of cells; normally, the cells divide to produce more cells only when the body needs them. If cells divide when new ones are not needed, they form a mass of excess tissue called ‘tumor’.<sup>1</sup>

Cancer has been recognized since ancient times, with its earliest descriptions dating back to ancient Egypt around 3000 BCE. The Edwin Smith Papyrus (circa 1600 BCE) contains references to tumors and ulcers of the breast.<sup>2</sup> The term “cancer” derives from the Greek word *karkinos*, meaning crab, a term first used by Hippocrates (460-370 BCE) due to the crab-like appearance of tumors.<sup>3,4</sup> Cancer remains one of the leading causes of mortality worldwide and is increasingly recognized as a major global health burden. According to the latest GLOBOCAN 2022 estimates, there were approximately 19,976,499 new cancer cases and 9,743,832 cancer-related deaths globally.<sup>5</sup> In India, 1,413,316 new cases and 916,827 deaths were reported during the same period.<sup>6</sup>

In the Unani system of medicine, cancer is conceptualized

as *Sartan* (Cancer), a term known since antiquity. Classical literature, as described by Hippocrates (*Buqrat*) and Galen (*Jalinus*), along with eminent scholars like Rhazes (*Razi*) and Avicenna (*Ibn Sina*), defined *Sartan* (cancer) as a type of *waram* (swelling). It is commonly attributed to the predominance of black bile (*sawdā*) or its pathological combustion.<sup>7,8</sup> In contrast, contemporary medicine attributes the etiology of cancer to genetic mutations, molecular alterations and environmental factors. Unani thought highlights disturbances in temperament (*mizāj*) and imbalances of the humors (*akhlāt*) as the fundamental origins of the disease.

Although classical literature provides detailed descriptions of the etiology, symptomatology, and therapeutic principles of *Sartan* (cancer), systematic reviews and scientific validation remain limited. This gap highlights the need to revisit classical concepts with modern understanding to identify potential contributions of Unani medicine in cancer prevention and integrative care. Therefore, this paper seeks to review the classical Unani literature of *Sartan* (cancer), analyze its causes, clinical features, and management strategies, and compare these insights with contemporary medicine.

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In recent years, India has undertaken concerted efforts to strengthen and promote AYUSH systems, including Unani medicine, through many global initiatives. In active collaboration with the World Health Organization, benchmarks for practice and training have been published, along with the development of International Standard Terminologies on Unani Medicine and its inclusion in the ICD-11 Traditional Medicine (TM 2) chapter.<sup>9</sup> It is also observed that Iran has achieved a prominent global position in scientific production in the field of Complementary and Alternative Medicine, ranking fourth worldwide following China, India, and the United States.<sup>10</sup> This reflects the expanding research interest and academic contribution in traditional medical systems, including Unani medicine. Therefore, reviewing the concept of cancer in Unani medicine, which encompasses the wisdom of Persian medicine, is both timely and significant in the context of growing global scientific engagement.

### Methodology

A comprehensive review on “*Sartan*” (Cancer) was conducted through an in-depth analysis of traditional Unani medical books available in the library of the Central Council for Research in Unani Medicine (CCRUM), Headquarters, New Delhi. Classical Unani texts were meticulously examined to extract descriptions and insights concerning the etiology, pathophysiology, clinical manifestations, and therapeutic approaches to *Sartan* (Cancer). The primary Unani sources consulted included the authoritative works of eminent physicians such as Hippocrates (*Buqrat*) (460-377 B.C.), Galen (*Jalinus*) (131-201 A.D.), Rhazes (*Razi*) (856-925 A.D.), Avicenna (Ibn Sina) (980-1037 A.D.), and Isma‘il Jurjani (1041-1136 A.D.), along with other standard compendia of Unani medicine. The Standard Unani Medical Terminology book was also considered to ensure the accurate use of English equivalent words for Unani terms mentioned in this article. Additional information on *sartan* (Cancer) and contemporary medical literature was systematically retrieved from electronic databases such as PubMed, ScienceDirect, and Google Scholar. The keywords used for the literature search included Unani Medicine, *Sartan*, Cancer, Anticancerous plant-origin drugs, Management, and Dietotherapy. Published articles were reviewed without restrictions on publication year to ensure comprehensive coverage of both historical and modern insights.

### *Sartan* (Cancer) in Classical Literature

The etymology of *Sartan* (Cancer) is based on its pathological element (*unsur*) and structural appearance. The element is extremely putrefied (*fāsīd*), resembling decayed soil or mud in nature. Morphologically, the lesion resembles a crab, as it contains numerous blood vessels. These are filled with an excessive accumulation of abnormal melancholic (*Sawdawi*) humors. Some physicians have also stated that, just as a crab firmly grips its prey, cancer similarly seizes the affected organs tightly.<sup>7,8,11-19</sup> In classical Unani literature, *Sartan* (cancer) is described as a type of melanotic swelling

(*Saudawi Waram*). Its development is attributed to the combustion of *Sawda* (black bile). This altered black bile (*Sawda*) is formed not from the combustion of pure black bile, but rather from the burning of *Safra* (yellow bile) or from *Balgham* (phlegm) when it is mixed with *Safra* (yellow bile). It never occurs by combustion of pure *sawda* (Black bile) because there is no acuteness (*hiddat*).<sup>7, 8, 14, 17-20</sup>

### Causes

According to Rhazes (*Zakariya Razi*), the author of classical texts such as *Al-Hawi*, excess accumulation of black bile (*Khilt-e-Sawda*) in the body may occur due to the following reasons:

1. **Excessive heat in the liver:** When the liver becomes abnormally hot, it produces an excessive amount of *Damwi Sawda* (blood-derived black bile).<sup>7-12,21</sup>
2. **Dysfunction of the spleen:** If the spleen is unable to eliminate melancholic (*Sawdawi*) humors efficiently, black bile begins to accumulate in the body.<sup>22</sup>
3. **Overproduction of melancholic (*Sawdawi*) humor:** Excessive formation of this humor itself contributes to pathological conditions.

In addition to quantitative excess, black bile may also undergo qualitative alteration. This altered form, known as abnormal black bile (*Sawdā' Ghayr Ṭabī'ī*), is produced when any of the four humors, including black bile itself, undergo combustion (*iḥtirāq*).<sup>21-24</sup> In other words, excessive heat acts upon a humor, leading to the generation of abnormal black bile. Unlike normal black bile, which serves important physiological functions, abnormal black bile (*Sawdā' Ghayr Ṭabī'ī*) is considered harmful and does not contribute to the body's physiological functions.<sup>8,11, 17</sup> In terms of quality, abnormal black bile (*Sawdā' Ghayr Ṭabī'ī*) is classified into two categories based on its formation. The first type is produced by the burning of normal black bile (*iḥtirāq-e-Sawda Ṭabī'ī*) and is responsible for *waram-e-Sulbh* (Hard Swelling), while the second arises from the burning of altered yellow bile (*iḥtirāq-e-Safra Ghayr Ṭabī'ī*). Both conditions result from a predominance of a hot and dry temperament. Diseases associated with this form include *Sartan* (cancer) and *Judhām* (leprosy).<sup>8, 13, 14</sup>

Additionally, several dietary substances are also reported to predispose toward the formation of abnormal black bile (*Sawda*). These include *Masoor dal* (red lentil), brinjal (*Solanum melongena*), *qan'beet* (cauliflower), meat of older wild animals, beef, and black wine.<sup>15, 24</sup>

### Distribution

According to classical Unani texts, cancer (*sartan*) predominantly develops in loose or moist organs (*A' zā' e-Raṭab*), as the highly viscous abnormal matter can more easily infiltrate, accumulate and initiate its formation. The commonly affected sites include the breast (*pistan*), uterus (*raḥim*), throat (*halaq*), respiratory system (*ālāt-e-tanaffus*), intestines (*a' nt*), urethra (*aḥlīl*), mouth (*dahan*), nerves (*aṣab*), eyes (*ayn*), and neck (*unq*).<sup>7,11,12,14-16,23-25</sup> In males, the frequently involved sites are the legs, intestine, mouth, and urethra,<sup>18</sup> and rarely in the larynx (*Ḥanjara*)

and esophagus (*Mari*).<sup>15</sup>

### Metastasis

Rhazes, Avicenna, and Ismail Jurjani describe a case of unilateral breast cancer in a woman in which the affected breast had been completely removed. Subsequently, cancer developed in the contralateral breast. This phenomenon was interpreted as the metastasis of *Sawda'* (morbid black bile) from one breast to the other.<sup>7-11,15</sup>

### Clinical Manifestations of Sartan

In its early stages, cancer (*sartan*) is considered difficult to diagnose.<sup>26</sup> Initially, it appears as an oval, bean-shaped, almond-shaped, or walnut-sized swelling that gradually increases in size. It is typically stony hard, irregular in surface, unsightly in appearance, pulsating, and severely painful. The intensity of pain is believed to depend on the degree of burning of yellow bile (*Safra*).<sup>8-12,19,24</sup> In advanced stages, the swelling may appear blackish or greenish in color. Application of irritant drugs can provoke convulsions, fever, syncope, and chills.<sup>27</sup> The ulcerative stage (*Sartan Mutaqarra*) presents with characteristic features: the ulcer is black, discharges thick secretions, and has a hard margin folded outward.<sup>24,7</sup> The discharge is foul-smelling and persistent. Over time, the affected tissue becomes necrosed and insensible. Prominent veins, resembling the legs of a crab and inclined toward greenish or blackish coloration, are often observed.<sup>7,19</sup>

### Etiopathogenesis

In the Unani System of Medicine, each organ in the human body is believed to have a specific temperament (*Mizāj*) that is essential for its proper function. To maintain health, it is important to keep this natural temperament balanced. This balance is directly linked to the quality and quantity of blood supplied to the organs, which itself depends on the optimal functioning of the digestive system. Digestive health is sustained through the intake of natural food, consumed in the correct quantity, at appropriate times, and in a proper order. Such regulated habits facilitate the production of normal humors (*Akhlāt Tab'i*), which are necessary for physiological function. On the other hand, an unhealthy diet (particularly cold and dry in nature) is consumed in excessive or insufficient amounts and at irregular intervals, and it can disturb the temperament of the digestive organs, resulting in the formation of *Akhlāt Radī* (abnormal humours). Moreover, even when the diet is healthy, taken in appropriate quantity and time, some external factors such as air, water, and occupational exposures may independently alter the temperament of the digestive organs (*Sū'-i-Mizāj*), leading to the formation of abnormal humors (*Akhlāt Radī*). In some cases, both internal and external factors act synergistically, affecting humor production in terms of both quality and quantity. Sometimes, a congenital (*Khilqī*) defect in the natural temperament of the digestive organ can also predispose individuals to the formation of abnormal humors (*Akhlāt Radī*), regardless of lifestyle

or environmental conditions.<sup>11</sup> Therefore, maintaining the natural temperament of the digestive system through balanced nutrition, regulated lifestyle, and minimization of harmful environmental influences is vital for sustaining health and preventing disease.

According to the book *Kitāb al-'Umda fi'l-Jarāhat*, cancer (*Sartan*) is conceptualized as a pathological condition arising from an imbalance in the body's natural humoral composition. Specifically, it is attributed to an excess of the melancholic humor, known as *Sawda* (black bile). This condition is classified as *Sū'-i-Mizāj Yabis Maddi Khaas*, indicating a morbid temperament characterized by a predominance of cold and dry humor localized in a specific organ. Unani medicine categorizes the body's organs into two types: soft and hard. Soft organs, due to their structure, are more permeable and readily absorb substances from the body. When an abnormal accumulation of black bile occurs, it infiltrates these soft organs more easily. Prolonged retention of this abnormal humor leads to distension (*Tamaddud*) of the affected organ. Over time, the retained black bile undergoes putrefaction (*Ta'affun*), which weakens the organ's intrinsic expulsive power (*Quwwat Dāfi'a*), responsible for eliminating waste materials. As this eliminative function fails, abnormal black bile continues to accumulate and leads to a gradual deterioration of the organ's physiological functions, eventually leading to swelling (*Waram*).<sup>14</sup>

The primary cause of *Sartan* (cancer) is an imbalance in the quality or quantity of *Khilt Sawda* (melancholic humor). This imbalance may occur due to the intake of foods and substances with properties similar to black bile (cold and dry), or because of dysfunction in the digestive organs, which are dominated by either a cold-dry or hot-dry temperament. When this abnormal matter becomes abundant in the body, the spleen (due to its weakness or the excessive or poor quality of black bile) fails to process and eliminate it effectively. As a result, the unprocessed black bile enters the bloodstream, and the body's organs continue to receive nourishment from it.<sup>11</sup> Altered black bile (*Sawda'*), produced as a result of *ihtirāq* (combustion), is considered extremely hot in quality and *akkāl* (corrosive) in nature. It progressively disturbs the normal qualitative and quantitative balance of the *Arkān* (primary components). Consequently, the *Mizāj* (temperament) of the affected organ is also altered. This imbalance ultimately affects the *Šurat Naw'iyya* (specific form) and its associated functions. In this pathological state, the altered black bile (*Sawda'*) erodes tissues and induces malignant transformations by altering their *Naw'iyya* (structure), a condition referred to as *Sartan* (cancer).<sup>8,12,13, 28, 29</sup> The key differences between *Waram-e-Sulb* (hard swelling) and *Sartan* (cancer) are summarized in Table 1.

### Usool-e-Ilaj (Principle of Treatment)

In Unani medicine, the treatment of *Sartan* (cancer) is based on well-defined principles that reflect the holistic and humoral foundations of this system. Since *Sartan* is primarily attributed to an abnormal predominance

**Table 1.** *Waram-e-Sulb* (Hard Swelling) vs *Sartan* (Cancer).<sup>7,8,14</sup>

| Aspect                        | <i>Waram-e-Sulb</i> (Hard Swelling)                                                     | <i>Sartan</i> (Cancer)                                                                                                                                                    |
|-------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Onset                         | Occurs after <i>Waram</i> , like phlegmatic (Balghami) or similar types of inflammation | Begins primarily and is not dependent on any prior <i>Waram</i> .                                                                                                         |
| Cause                         | <i>Tabai sawda</i> (Normal Black Bile)                                                  | <i>Sawda ihtiraqi</i> (Black bile produced either by combustion of black bile itself or combustion of any of the other three humors, i.e. sanguine, phlegm, yellow bile). |
| Appearance                    | Hard/ stony                                                                             | Crab like                                                                                                                                                                 |
| Dependence                    | Dependent on a preceding cause or condition                                             | Independent, develops on its own                                                                                                                                          |
| Organ involved                | Mainly Hard organs                                                                      | Loose and soft organs                                                                                                                                                     |
| Surrounding Vessels           | Such vessel changes are less noticeable or absent                                       | Vessels around are often filled with morbid, melancholic matter                                                                                                           |
| Touch                         | Feels less warm on touch                                                                | Feels warmer or hot on touch                                                                                                                                              |
| Pain                          | Painless                                                                                | Often painful                                                                                                                                                             |
| Growth Speed                  | Slow-growing                                                                            | Rapid-growing due to an excess of morbid matter                                                                                                                           |
| Expansion ( <i>Intifakh</i> ) | Mild to moderate swelling                                                               | Severe swelling and mass formation                                                                                                                                        |
| Sensation                     | Lost                                                                                    | Present                                                                                                                                                                   |
| Nature                        | A reactive, secondary condition                                                         | A primary, malignant disease                                                                                                                                              |
| Manifestation                 | Appears visibly first, symptoms follow soon after                                       | Starts very silently and hidden, symptoms appear late and are severe                                                                                                      |
| Difficulty of Diagnosis       | Usually easy to detect early                                                            | Often hard to detect early                                                                                                                                                |

of *Sawda* (black bile) and derangement of the natural temperament (*Mizāj*), the therapeutic strategy aims not only at targeting the *Sartan* but also restoring the overall humoral balance of the body. The renowned Unani scholars emphasized that management should begin with the removal of the causative factors and evacuation of morbid humors from the body, followed by measures to resolve or arrest the growth of the *Sartan*. Alongside this, equal emphasis is given to strengthening vital organs, regulating diet and lifestyle, and adopting regimental therapies (*Ilāj bi'l-Tadbīr*). Where necessary, surgical intervention is also considered, supported by the use of pharmacological agents (*Ilāj bi'l-Dawā*) and topical agents to reduce the chances of recurrence. The *Uṣūl-i-Ilāj* (principles of treatment) of *Sartan* (cancer), as described in Unani literature, can be summarized in the following steps:

1. ***Izāla'-i-Sabab* (Removal of Cause):** Elimination of etiological factors, particularly abnormal black bile (*Sawda-i-Ghair Tabi'i*), and correction of humoral imbalance (*Su'-i-Mizāj*).
2. ***Ilāj bi'l Tadbīr* (Regimenal therapy):** *Fasd* (Venesection): evacuation (*Istifrāgh*) should be performed from the *Wārid al-Akhal* (median cubital vein)<sup>16,24</sup> and the *Bāsiliq* (basilic vein)<sup>18</sup>, depending on the patient's strength, in order to reduce the excess of morbid humors. *Ishāl* (inducing purgation) is advised many times weekly until clinical improvement is observed.
3. ***Tanqiya-e-Mawād* (Evacuation of Morbid Humors):** Administration of *Munzijāt-e-Sawda* (concoctives of black bile) and *Mushilāt-e-Sawda* (purgatives of black bile).<sup>23</sup>
4. ***Mundij-i-Sawdā'* (Concoctives drugs)** include Bisfaij (*Polypodium vulgare*), Ustukhuddus (*Lavandula stoechas*), Parshiyonshan (*Adiantum capillus*), Gaozaban (*Borago officinalis*), Badrajboya (*Mellisa officinalis*), Aslussus (*Glycerrhiza glabra*), Badiyan

(*Foeniculum vulgare*), Unnab (*Zizyphus sativa*), Barge-Shahtara (*Fumaria officinalis*), Sapistan (*Cordia latifolia*), Khitmi (*Althaea officinalis*), Tukhme Kasni (*Cichorium intybus*), Gule Surkh (*Rosa alba*), Maweez Munaqqa (*Vitis vinifera*).<sup>30,31</sup>

5. ***Mushil-i-Sawdā'* (Purgatives drugs)** include Aftimoon (*Cuscuta reflexa* Roxb.), Shahamhanzal (*Citrullus colocynthis* Schrad.), Elva (*Aloe barbadensis* Mill.), Balela (*Terminalia bellerica*), Halela Siyah (*Terminalia chebula* Retz.), Turbud (*Ipomea turpethum* R. Br.), Amla (*Embllica officinalis* Garten.), Ustukhuddus (*Lavandula stoechas* Linn.), Badranjboya (*Melissa officinalis* Linn.), Barge Sena (*Cassia angustifolia* Vahl.), Ghariqoon (*Agaricus alba* Linn.), with *Sikanjabīn* (oxymel) & *maul asl* (honey water), Non-irritative neutral resolvent (*Moatadil mohallilat*) like Kasni (*Cichorium intybus* Linn.), Marzanjosh (*Origanum vulgare* Linn.), Baranjasif (*Artemisia vulgare* Linn.), Baboona (*Matricaria chamomilla* Linn.), Hayyul Aalam/Sadabahar (*Catharanthus roseus* (L.) G. Don.).<sup>32,33</sup>
6. ***Ilāj bi'l Taghdhiya* (Dietotherapy):** In the Unani system of medicine, dietary regulation (*Ilāj bi'l-Ghidha*) forms a cornerstone in the management of disorders arising from the predominance of *Sawdā'* (black bile). Patients are advised to avoid foods that contribute to the formation of *Sawdā'* (black bile). Instead, a diet that is moist, cold, and light in nature is recommended, as such dietary regimens facilitate the formation of healthy and balanced (*Ṣāliḥ*) blood, which is less prone to combustion and, consequently, less likely to form *Sawdā'* (black bile). Such dietary modulation not only helps in reducing the excess of this morbid humor but also restores humoral balance. Like- Kaddu (*Cucurbita maxima*), Khurfa (*Portulacca oleracea*), Cholai/Lal Saag (*Amaranthus polygamus*), Bathua (*Chenopodium album*), little fishes, Kheera

(*Cucumis sativus* Linn.), Qisa (*Cucumis melo*), Maul Jubn (whey water), Maus-Shaeer (water of *Hordeum vulgare*), Nabeez (Arisht).<sup>7,18, 19, 21,24</sup> The dietary recommendations and foods to be avoided in *Sartan* are summarized in Table 2.

7. **Ulcer Management:** If an ulcer has developed, the recommended approach is to apply medicines that are both astringent (*Qabiz*) and corrosive (*Ta'akul*), such as Qalqatār (*ferric oxide*) and Zangar (*verdigris*). Care must be taken to avoid excessive pain and to ensure that the discharge of morbid matter (pus/fluids) is not obstructed.<sup>7,8,24</sup> In cases of cancer without ulceration, the application of Tudrī (*Lepidium sativum* Linn.) mixed with water and honey as a poultice has been found beneficial.<sup>7</sup>
8. **Topical Applications:** At the onset of *Waram* (inflammation), the application of *Dimād* (poultice) prepared from *Radi* medicines (repellents) is recommended.<sup>20</sup> In addition, regular use of *Mulayyin* (laxative emollients), *Muhallil* (resolvents), and *Naṭūl* (therapeutic douches) is advised. However, excessive application should be avoided to prevent the generation of heat.<sup>7</sup>
9. **Islāḥ-e-Kabid (Correction of Liver Function):** The temperament of the liver can be normalized by advising appropriate diets, drinks, and poultices, thereby preventing the production of *Akhlat Muḥtariqa* (burnt humours).<sup>18, 20, 34</sup>
10. **Pain Management:** The therapeutic approach includes the administration of *Musakkin* (analgesic) drugs to relieve pain.
11. **'Ilāj bi'l-Yad (Surgery):** Another approach to cancer management described in The Canon of Medicine is surgical treatment. The text emphasizes that excision should be radical, aiming for the complete removal of all diseased tissue. This includes procedures such as amputation or the removal of veins in the direction of tumor spread. When necessary, cauterization of the affected area was also recommended to prevent further disease progression.<sup>7,8</sup> The major principles of treatment of *Sartan* in Unani medicine are illustrated in Figure 1.

## Management

**Table 2.** Dietary Guidelines: Foods to Avoid vs. Foods Recommended<sup>7,11,15,24</sup>

| Category              | Foods to Avoid                                                                                    | Foods Recommended                                                                                                                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperament           | Substances with a hot temperament (dietary or medicinal)                                          | Substances with a cold and moist temperament                                                                                                                                                                                                                  |
| Reason                | It may overheat the blood, leading to its transformation into melancholic humor ( <i>Sawdā</i> ). | They facilitate the production of healthy and balanced ( <i>ṣāliḥ</i> ) blood, which is less likely to undergo abnormal combustion and transform into black bile ( <i>sawdā</i> ).                                                                            |
| Texture/Quality       | Viscous and mucilaginous foods                                                                    | Light and easily digestible foods                                                                                                                                                                                                                             |
| Examples - Vegetables | Brinjal (eggplant), lentil, cabbage,                                                              | Palak (spinach)                                                                                                                                                                                                                                               |
| Examples - Liquids    | Thick/viscous alcohol                                                                             | Barley water ( <i>Mā' al-Sha'ir</i> ), whey water ( <i>Mā' al-Jubn</i> ), Diluted alcohol, pure form of Nabeez (date or raisin infusion) and Roghan badam (Almond Oil)                                                                                        |
| Examples-Fruits/Herbs | Sumaq, Purslane (Khurfa),                                                                         | Kaddu ( <i>Cucurbita maxima</i> Duchesne.), Khatmi ( <i>Althaea officinalis</i> Linn.), Bathuwa ( <i>Chenopodium album</i> Linn.), Cholae ( <i>Amaranthus polygamus</i> Linn.), Kheera ( <i>Cucumis sativus</i> Linn.), Anar ( <i>Punica granatum</i> Linn.). |
| Examples-Meat/Protein | small-sized birds, cow beef,                                                                      | Meat of goat kid, chicken, egg yolk, Fish                                                                                                                                                                                                                     |

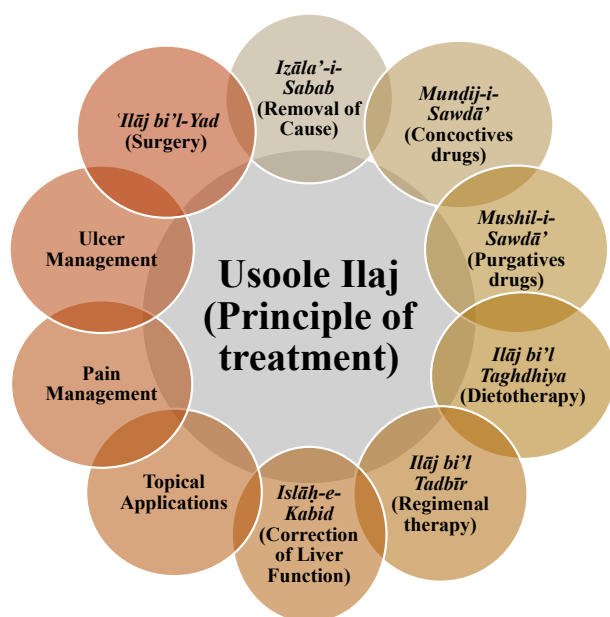
In Unani medicine, it is emphasized that not every disease should be treated at its very beginning or at its most advanced stage; some conditions, such as melancholic disorders, require early intervention before they become firmly established, while others, like cataract, require only after the disease has become established.<sup>16</sup> In a similar manner, Unani scholars have classified *Sartan* (cancer) into distinct stages, namely the 1-initial stage, 2-the established form (*Sartan Mustahkam*), 3- the non-ulcerative, 4-ulcerative types, and the 5- hidden or occult variety (*Sartan Khafī*).<sup>7,13</sup> Ibn Sīnā, in his classical text *al-Qānūn fi'l-Ṭibb* (*The Canon of Medicine*), outlines four therapeutic objectives in the management of cancer: although a complete cure is considered extremely difficult, treatment should aim to prevent its progression, to avoid ulceration, and, if ulceration occurs, to manage it appropriately.

## Curing Completely (Very Difficult)

As long as *Sartan* (cancer) remains in its early stage, it can be managed with medicines, particularly when combined with such drugs that induce *Ishāl* (purging of black bile) and thereby perform *Tanqiya* (detoxification) of the body from *Sawda* (black bile). Even if surgical cautery (iron rod) is considered as the first line of treatment, it is essential to perform *Istifrāgh* (evacuation) of *Sawda* (black bile) previously. After this, the affected site should be treated in such a way that no diseased tissue remains, allowing the blood to flow out freely without hurrying to stop it. The surrounding '*Urooq* (vessels) should be compressed to facilitate the removal of accumulated *Ghaliz Khoon* (impure/thick blood). Following this, the *Qurḥ* (ulcer) should be managed. However, if the *Sartan* or *Qurūḥ* (ulcers) fail to heal, then excision of the organ from its root is advised.<sup>7</sup>

## Preventing its Progress

Medicines that stop growth, for example, rose oil (*Roghan gul*), rub lead in green coriander water and in the water of fresh makoh leaves (*Solanum nigrum*), tutiya magsool (*Copper sulphate*), Safeda Kashgari (*Lead carbonate*), murdar sang (*Calamine*), Gil Armani (*Armenian Bole rubra*) and *nishashta* (Starch).<sup>19, 20</sup>



**Figure 1.** *Usool-e-Ilaj* (Principle of treatment) in Unani Medicine for *Sartan* (Cancer)

### Preventing from Ulceration

Medicines that preserve wounds from pus formation, for example, lead carbonate (*Safeda Kashgari*), *Bole armeniae rubra* (*Gil-e-Armani*), water lettuce (*Aab Kahu*), and olive oil (*Roghan zaitoon*).<sup>19</sup> *Marham-e-Rasl*, a poultice prepared from chickpea flour and *Bartang* (*Plantain major*) applied to cancerous swellings, is reported to help in resolving swellings.<sup>7</sup> If it has become ulcerated, then it should be treated. *Abū Manṣūr al-Ḥasan al-Qamarī*, in his book *Gana Mana*, cites *Zakariyyā al-Rāzī* (Rhazes) as saying: *I treated a patient who had cancer at the root of his ear, presenting with an ulcer that had already suppurated. I used to sprinkle Zangar (verdigris) on the ulcer, and it gradually excised it, little by little, ensuring that the wound did not become too deep. From this experience, I felt hopeful that cancer could be managed by this medication.*<sup>15</sup>

*Haldi* (*curcuma longa* linn.), *Asfidaaj* (Lead carbonate), *Rasas* (Lead), and *Gil-e-Armani* (Armenian *Bole rubra*) grind all these drugs in water of makoh (*Solanum nigrum* Linn.) and *Roghan-e-Gul* (Rose oil), and apply as a *Tila* over the affected site.<sup>7</sup> In the treatment of this disease, the practice of some physicians of *Haddān* was that they would first carefully examine the cancer, count the adjacent veins, and observe to which veins it was connected, where it was spreading, and which vessels were directly attached to the cancer. Thereafter, they would cut all such veins and cauterize them.<sup>16</sup>

When cancer occurs in the internal organs, or in such organs which are not visibly apparent, certain specific signs and symptoms indicate its presence. Both Hippocrates and Galen are against the treatment of cancers in such locations. And they have never seen a patient recover from it through treatment. However, he also notes that if it is diagnosed in the early stage, there may be some hope. However, they recommended management through safer approaches, such as evacuation by *Faṣd* (venesection), *Ishāl* (Inducing purgation) and providing good nourishment. They also

cautioned that the use of other methods could be dangerous and might even prove fatal.<sup>8,16</sup>

The method of treatment of physician Ali Kahal was that after repeated venesection and evacuation, he would excise the cancer and then place pieces of old cotton soaked in old ghee over it, so that pus would form inside and begin to discharge. In this way, the cancer would gradually melt away and dissolve. Although such treatment took time, it was considered a safe method.<sup>16</sup> If *Sartan* (cancer) is small in size and far away from *Aza-i-Shareefa* (vital organs), then surgical treatment may be advised, and excision may be made along with some part of healthy tissues. Later on, the wound may be treated with ointment. Sometimes cauterization is indicated after excision, but it should be done very carefully; otherwise, some other complications may occur.<sup>7,8,16</sup> The important anticancer herbal drugs and their possible mechanisms of action are summarized in Table 3.

### Discussion

In Unani medicine, the development of *Sartan* (cancer) is explained based on humoral imbalance, especially the predominance of *Sawdā'* (black bile). Classical texts describe that when *Sawda* becomes abnormal due to *ihtirāq* (burning) or admixture with other humors, it turns abnormal and produces hard, irregular, and progressive *Waram* (swellings), which are resistant to treatment. On the other hand, conventional medicine attributes cancer to genetic mutations, cellular deregulation, and failure of the immune system. Factors such as chemical carcinogens, radiation, chronic inflammation, viral infections, and hereditary predisposition are recognized as major causes.

Firstly, the Unani concept of *Mizāj* (temperament) emphasizes the importance of preserving the natural balance of each organ to ensure its proper functioning.<sup>21</sup> This concept closely parallels the conventional medicine principle of homeostasis, which highlights the need for every organ to maintain an optimal physiological environment, such as appropriate pH, temperature, oxygenation, and enzymatic activity for normal function. In both systems, disturbance of this equilibrium, whether of *Mizāj* (temperament) or homeostasis, is regarded as a fundamental precursor to the onset of disease.

The theory of *Akhlāt* (humors) in Unani medicine further strengthens this perspective. It states that *Akhlāt Ṭab'ī* (normal humors) are essential for maintaining health, whereas *Akhlāt Radī* (abnormal humors) are the basic cause of disease. Among the four humors, *Sawda* (black bile) holds a special association with cancer in classical Unani literature. Its excess or poor quality is described as the primary cause of *Sartan* (cancer).<sup>11</sup> A similar distinction is made in conventional medicine, where beneficial metabolites are considered as essential for cellular functions, while toxic by-products of abnormal metabolism, such as free radicals, are known to disturb biochemical balance and contribute to disease progression. In this context, the Unani concept of abnormal humors may be understood as a symbolic parallel to harmful by-products of abnormal metabolism.

**Table 3.** Important Anticancer Herbal Drugs and Their Possible Mechanism of Action

| Unani name   | Scientific Name                                                 | Part used                 | Phytochemicals                                                                 | Anti-cancerous Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------|-----------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sadabahar    | <i>Catharanthus roseus</i> (L.) G. Don.                         | Leaves and stem           | vinblastine, vincristine, vinleurosine, vinrosidine                            | Act by blocking mitosis at the metaphase stage, eventually leading to apoptosis. <sup>35-39</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Suranjan     | <i>Colchicum luteum</i> Baker                                   | Seed                      | Colchicine                                                                     | It interacts with 'tubulin', a protein that aggregates to form microtubules and the mitotic spindle. <sup>35,40,41</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Amla         | <i>Emblica officinalis</i> Garten.                              | Fruits                    | vitamin C, Tannins, Flavonoids                                                 | It shows strong antioxidant, Immune-stimulatory and Anti-inflammatory activities. <sup>42-45</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Giloe        | <i>Tinospora cordifolia</i> (Willd.) Mires ex Hook. f. & Thoms. | Stem                      | Berberine                                                                      | Enhance the humoral immune response. <sup>38,42,46,47</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Asgandh      | <i>Withania somnifera</i> Linn.                                 | Root                      | Withaferin A<br>Withanolide D                                                  | Inhibits RNA and protein synthesis. <sup>47,48</sup><br>Inhibits RNA synthesis. <sup>47,48</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Rewand chini | <i>Rheum emodi</i> Wall. Ex. Meissn.                            | Rhizome and Root          | Antraquinones, Stilbene                                                        | Emodin inhibits the activity of casein kinase II (CKII) by acting as a competitor at ATP-binding sites.<br>Inhibit cancer cell growth, anti-inflammatory and promote apoptosis. (Modulate key molecular pathways involved in cancer development, including those related to cell proliferation (like PI3K and MAPK) and inflammatory signaling (like NF-κB)). <sup>49-52</sup>                                                                                                                                                                                                                                                                                                                                         |
| Kalonji      | <i>Nigella sativa</i> Linn.                                     | Seeds                     | Thymoquinone<br>Dithymoquinone                                                 | The anticancer mechanism of <i>Kalonji</i> involves binding to asialofetuin (a lectin) present on the surface of cancer cells, leading to their aggregation and clumping. <sup>53-56</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Haldi        | <i>Curcuma longa</i> Linn.                                      | Rhizome                   | Curcumin, Zingiberine, and Curcuminoids                                        | Induces apoptosis and exhibits antioxidant and anti-inflammatory activities. <sup>57,58</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Zanjabeel    | <i>Zingiber officinale</i> Rosc.                                | Rhizome                   | Gingerols and Shogaols                                                         | Suppression of angiogenesis, as well as induction of apoptosis and autophagy. <sup>59</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Aftimoon     | <i>Cuscuta reflexa</i> Roxb                                     | Seed and Stem             | Cuscutamine                                                                    | Exhibited antiproliferation activities in HCT116 colorectal cell lines. Induced apoptosis in Hep3B cells through the upregulation of p53 and BAX and downregulation of Bcl-2 and survivin. <sup>60-61</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Zafran       | <i>Crocus sativus</i> Linn.                                     | Stigma                    | Carotenoids (Crocetin)                                                         | Inhibiting nucleic acid synthesis, enhancing the anti-oxidative system, inducing apoptosis and hindering growth factor signaling pathways. <sup>62-63</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Rehan        | <i>Ocimum sanctum</i> Linn.                                     | Leaves                    | Eugenol, Cirsilineol, Cirsimaritin, Isothymusin, Apigenin, and Rosmarinic acid | The alcoholic extract of leaves has also been reported to modulate carcinogen-metabolizing enzymes, such as aryl hydrocarbon hydroxylase and GST, which play a key role in detoxifying carcinogens and mutagens. Moreover, leaves inhibit 7,12-dimethylbenz[a]anthracene (DMBA)-induced carcinogenesis by blocking the metabolic activation of this carcinogen. <sup>38,47,64-66</sup>                                                                                                                                                                                                                                                                                                                                 |
| Asl-us-Sus   | <i>Glycyrrhiza glabra</i> Linn.                                 | Root                      | Glycyrrhizin, Glycyrrhizic Acid, Isoliquiritin, and Glycyrrhizic acid          | Licochalcone A (LCA) suppressed the oxidation of cancer cells and markedly inhibited the proliferation of cells. Aerial parts showed remarkable activity against human cancer cell lines (HeLa, MCF-7, MDA-MB-231, Caco-2, and PC3). Inhibited proliferation of the colon cancer cell line HT-29. Isoangustone-A (IAA), a novel flavonoid from licorice root, suppressed the proliferation of human melanoma cell lines SK-MEL-28. <sup>67,68</sup>                                                                                                                                                                                                                                                                    |
| Afsanteen    | <i>Artemisia absinthium</i> Linn.                               | Leaves and flower         | Artemisinin and its derivatives, Quercetin, and Polyphenols (pKAL).            | These compounds inhibit cancer cell proliferation, invasion, and metastasis, and induce apoptosis by regulating pathways like PI3K/AKT, JAK-STAT, p53, and GPX4. <sup>69</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mako         | <i>Solanum nigrum</i> Linn                                      | Leaves                    | Solamargine, Solasonine                                                        | It primarily involves the inhibition of cell proliferation, cell cycle arrest and induction of apoptosis, and suppression of epithelial-mesenchymal transition (EMT) and tumor metastasis. <sup>70</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Unnab        | <i>Ziziphus jujube</i> Mill.                                    | Fruits, Seeds, and Leaves | Saponins, Triterpenic acid. Flavonoids                                         | Exerts positive effects on anti-inflammation and antioxidation, inhibits cell proliferation, promotes apoptosis, induces cell cycle arrest, and causes DNA damage. <sup>71</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Zarishk      | <i>Berberis vulgaris</i> Linn                                   | Root, Stem and bark       | Aromoline, Berberine, Berbamine                                                | Berberine could inhibit cancer cell proliferation by upregulating miR-214-3p, reducing the protein levels of its target SCT, regulating β-catenin, downregulating the activity of telomerase, and deactivating the MAPK signaling pathways.<br>Berberine can induce apoptosis in cancer cells through multiple mechanisms, including activation of the AMPK-p53 and inhibition of the PI3K/AKT/mTOR signaling pathways, regulation of the miR-19a/TF/MAK axis, and modulation of the CASC2/AUF1/Bcl-2 pathway.<br>Berberine could activate cancer cell autophagy via modulating the MAPK signaling pathway and inhibiting the accumulation of microtubule-associated protein light chain 3II (LC3II). <sup>72-75</sup> |
| Baladur      | <i>Semecarpus anacardium</i> Linn.                              | Nut                       | 3-[8 (Z),11 (Z)-pentadecadienyl]catechol (SA-3C)                               | Nut extract showed a decrease in Bcl(2) and an increase in Bax, cytochrome c, caspases and PARP cleavage, and ultimately by internucleosomal DNA fragmentation. <sup>76,77</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Chirchita    | <i>Achyranthes aspera</i> Linn.                                 | Leaves                    | Phthalic acid, Hexadecanoic acid, methyl ester                                 | AAML (A. aspera methanolic leaf extract) suppressed cell proliferation, decreased mitochondrial membrane potential, changed the morphological structure, and induced apoptosis. Moreover, AAML could promote the release of cytochrome c by regulating Bcl-2 family proteins and then activate caspase-9/3 to trigger cell apoptosis. <sup>78,79</sup>                                                                                                                                                                                                                                                                                                                                                                 |
| Waj Turki    | <i>Acorus calamus</i> Linn.                                     | Rhizome                   | Alpha-Asarone and Beta-Asarone                                                 | Inhibits tumor growth and induces apoptosis in the U251 tumour xenograft nude mice model. Apoptosis, as confirmed by the fragmentation of DNA in the growth-inhibited tumors (TUNEL assay). Inhibition of angiogenesis. <sup>80</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

It is now increasingly recognized that the majority of diseases arise primarily due to an imbalance between pro-oxidant and antioxidant homeostasis in the body. This imbalance occurs when pro-oxidant conditions dominate, either because of excessive generation of free radicals or due to an insufficient capacity of the body to neutralize or scavenge them. Free radicals are continuously generated within the body through normal physiological processes. Under healthy conditions, there exists a dynamic equilibrium between the production of free radicals and the antioxidant mechanisms that quench or scavenge them, thereby protecting the body from their potentially deleterious effects.<sup>42,81,82</sup>

Therefore, the activity of free radicals in the body is naturally regulated and restricted by another group of chemical compounds known as antioxidants, many of which are abundantly present in commonly consumed food materials. Among the most important are  $\beta$ -carotene, vitamin C (ascorbic acid), and vitamin E (tocopherol), which play a vital role in protecting the body against oxidative stress. These antioxidants act by scavenging the excess free radicals that accumulate in the system, thereby reducing their harmful effects and preventing the onset of oxidative damage associated with cancer.<sup>83</sup>

Several medicinal plants exert anticancer effects primarily due to their strong antioxidant activities. The key antioxidant phytochemicals present in these plant-derived drugs include vitamins (A, C, E, and K), carotenoids (such as carotene), terpenoids, and a wide range of flavonoids, including quercetin, flavones, isoflavones, flavanones, anthocyanins, catechins, and isocatechins. Other important groups are polyphenols (ellagic acid, gallic acid, and tannins), alkaloids, glycosides, polysaccharides, saponins, lignins, xanthenes, as well as enzymes like superoxide dismutase (SOD), catalase, and glutathione peroxidase. Minerals such as selenium, copper, manganese, zinc, chromium, and iodine also contribute to this protective role. Collectively, these antioxidants protect both humans and animals from cancer and several other diseases by preventing oxidative damage to cells caused by free radicals, which are highly reactive oxygen species.<sup>38,47,84-86</sup>

Digestive dysfunction represents another common etiological factor acknowledged in both Unani and modern medical systems. Unani texts explain that impaired digestion leads to the formation of abnormal humors (precursor of disease)<sup>13,21,22</sup>, while conventional medicine highlights the “gut–cancer axis,” in which an unhealthy diet, altered microbiota composition, and poor digestive function produce carcinogenic by-products, cause nutritional deficiencies, and increase the risk of gastrointestinal and systemic cancers.

The spleen holds a particularly significant role in the Unani understanding of *Sartan* (cancer). A weakened spleen is unable to filter or process abnormal *Sawda* (black bile), thereby allowing it into the circulation and contributing to disease development.<sup>7</sup> In conventional medicine, this corresponds to the failure of detoxification pathways and an impaired immune system, both of which play a crucial

role in preventing malignant transformation. The inability of the immune system to eliminate precancerous cells closely parallels the Unani notion that weakened organ function facilitates disease progression.

In recent years, immunomodulation has emerged as a major focus of global scientific research, with increasing emphasis on strengthening the immune system to prevent infections rather than treating them at advanced stages. This has led to the development of the concept of pro-host therapy, which aims to enhance host immune function and thereby reduce disease susceptibility.<sup>82,87</sup> Within this context, Unani medicine offers valuable therapeutic options, as many of its drugs are well recognized for their immunomodulatory potential. These agents stimulate both specific and non-specific immune responses, restore physiological balance, and strengthen body tissues, thereby improving overall disease resistance. Immunomodulatory therapy is now being acknowledged as a promising alternative or complement to conventional chemotherapy for the management of various disorders. Classical Unani formulations such as *Itrifal* (A polyherbal semi-solid medicinal preparation formulated primarily of *Phyllanthus emblica* (Amla), *Terminalia chebula* (Halela), and *Terminalia bellirica* (Balela) as main ingredients along with other drugs), renowned for its significant antioxidant properties, exemplify this approach. Among its components, *Phyllanthus emblica* (Amla) is especially valued for its potent antioxidant activity and is also a key ingredient in the well-known formulation *Triphala*, a term collectively referring to the combination of these three fruits. In addition, other Unani formulations such as *Khamira Marwarid* (A blended, whitish, frothy semi-solid Unani preparation in which the principal ingredient is *Marwarid* (pearl)), *Halwa Gheegawar* (A semi-solid medicated sweet preparation in which the principal ingredient is Aloe Vera), and *Khamira Gauzaban* (A blended, whitish, frothy semi-solid Unani preparation in which the principal ingredient is Borage), etc. are also traditionally employed for their immune-strengthening and restorative effects.<sup>31,32</sup>

Both systems also recognize the susceptibility of organs to cancer. Unani physicians observed that soft and moist organs such as the breast, uterus, and intestines are particularly prone to *Sartan* (cancer). Conventional medicine similarly reported a higher incidence of malignancies in hormone-sensitive tissues (breast, uterus) and high cellular turnover sites (intestines, skin, and oral mucosa). The adhering nature of *Sartan* (cancer), like a crab to the organ, resembles the modern understanding of invasion and metastasis.

Finally, in both Unani and conventional medicine, similarities can be seen in the prevention of *Sartan* (cancer). Unani medicine emphasizes the preservation of temperament and maintenance of humoral equilibrium through regulated diet, lifestyle and external factors. Conventional medicine strategies similarly include lifestyle modification, including balanced nutrition, regular physical activity, avoidance of carcinogenic exposures, vaccination,

and early screening. Despite differences in theory, approach, and methodology, both systems converge on fundamental principles of disease causation, progression, and prevention. This comprehensive review summarizes medicinal plants and their bioactive compounds that demonstrate potential anticancer activity based primarily on preclinical and experimental evidence. However, the therapeutic claims associated with these phytochemicals remain limited by the scarcity of robust clinical trial data. Therefore, well-designed clinical studies across diverse models are essential to evaluate their efficacy, safety, and toxicological profiles.

## Conclusion

A review of the available classical literature on *Sartan* (cancer) indicates that this disease has been recognized since antiquity. Unani physicians described it as a *sawdāwī* (melancholic) disorder, resulting from the combustion of black bile (*sawdā*). Although generally considered incurable, they observed that treatment could be attempted if detected in its initial stage. Regarding surgical management, renowned physicians discouraged operative intervention in cases involving internal or vital organs, as such procedures were considered unsafe and inadvisable. This review highlights the etiology, pathogenesis, and anticancer potential of Unani medicinal plants, intending to contribute to the development of safe and effective therapeutic agents against this deadly disease. It also emphasizes the role of temperament and humoral imbalance in the Unani conceptualization of cancer and compares these perspectives with those of conventional medicine.

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The authors declare that they have no conflicts of interest or competing financial interests related to this work.

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