



## A Comprehensive review on Sartan (Cancer)

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### ARTICLE INFO

#### Article History

Received 14 April 2020

Revised 24 October 2020

Accepted 16 November 2020

Available Online 17 November 2020

#### Keywords:

sartan,  
saudavi madda,  
sartan-e-umoomi,  
sartan-e-maqami,  
ilaj-bil-ghizza,  
ilaj-bit-tadbeer,  
ilaj-bil-yad,  
ilaj-bil-dawa

### ABSTRACT

Unani system of medicine is the traditional art of healing recognized worldwide. Medicinal plants have been served through ages as a constant source of medicament for the treatment of variety of ailments. Cancer is considered as one of the fastest growing diseases with an estimated worldwide incidence of 10 million new cases per year. According to medical statistics, more than half of all cancer patients do not live 5 years. There have been reports that one out of three persons dies of cancer today and by the year 2010 this figure is expected to be one in two. The knowledge of sartan (cancer) in Unani can be traced from ancient times (131-200 AD). According to Unani sartan is due to sauda (black bile) and saudavi madda which may develop into two types they are tabayee saudavi madda (normal) and ghair tabayee saudavi madda (abnormal) which further develops into warm e sulb (hard swelling). If tabayee saudavi madda burns it leads to sartan (kitabul umdah). Avicenna noted that cancer always occurs in hollow organs and that is why it is more frequent in women. When sauda becomes oxidized it acts as a precursor for the formation of sartan. In unani, sartan is classified into two, they are sartan- e-damvi or umoomi (blood cancer) and sartan-e-maqami or uzuwi (localized cancer) which is further divided into nine. Presence of hard mass on the parts of body with burning and pricking sensation is one of the common manifestations of sartan. The ilaj (treatment) of sartan is based on the modulators which are mentioned in the classical Unani literature, viz; ilaj -bil-ghizza (dietotherapy) like beans, cruciferous vegetables etc. ilaj-bil-dawa (pharmacotherapy) like joshanda (decoction) aftimoon, single drugs like shahitra, bisfaij etc... ilaj-bit- tadbeer (regimental therapy) like mushilat (purgation), hijamah (cupping), fasd (venesection) etc. and ilaj -bil-yad (surgery). The purpose of these methods is evacuation of ghair tabayee saudavi and normalization of those matters.

### 1. INTRODUCTION

The word "cancer" originated from 'cancrum' which is a Greek word for Crab and it is credited to the Greek physician Hippocrates (460-370 BC). Hippocrates used the terms carcinos and carcinoma to describe non-ulcer forming and ulcer-forming tumors. Cancer is Latin translation of Greek word for crab, because of finger like a spreading projection from a cancer called to mind the shape of a crab (Naaz, F., & Ahmed, S. 2017). Cancer is one of the leading causes of death in world. According to medical statistics, more than half of all cancer patients do not live 5 years. There have been reports that one out of three persons dies of cancer

today and by the year 2010, this figure is expected to be one in two. Cancer is a group of disease Cause when abnormal cells divide rapidly, and spread to other tissues and organs. These abnormal cells are termed as cancer cells, tumor cell or malignant cell (Karita *et al.*, 2019). These cells can infiltrate normal body tissues, many cancers and the abnormal cells that compose the cancer tissue are further identified by the name of the tissue that the abnormal cells originated from. For example breast cancer, lungs cancer, etc. the possible sign and symptoms include a lump, abnormal bleeding, prolonged cough, unexplained weight loss, and change in bowel moments, while there symptom may indicate cancer, they can also have other causes. Over hundred types of cancer affect humans. Tobacco use is the cause about 20 percentage of Cancer deaths. Another 10 percentage due to obesity poor diet, lack of physical activity or the excessive drinking of alcohol. Other 10 percentage due to inherited genetic defects from a person's parents. Management of cancer is done by chemotherapy, radiation therapy, surgery, immunotherapy, and laser therapy. But in spite of all measures taken like chemotherapy, radiation

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DOI: 10.46890/SL.2020.v01i06.003

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and surgeries, it cannot be accomplished. Other option for its treatment is palliative care. All modern therapies have severe adverse effects and chances of recurrence. Therefore the whole world is looking at alternative therapies.

In Unani system of medicine cancer is known as sartin. Which means crab as it sticks to its prey like crab. Sartin has been defined as a type of malignant, melantonic swelling which can gradually increases with time. It spread rapidly and the roots of this swelling are deep with prominent vessels (Jamil *et al.*, 2012; Razi-2000).

According to Unani system of medicine cancer is essentially a disease of black bile (sauda) that means excessive production and the collection of sauda (Anjum, R. 2019). saudavi mada develop into two as tabayee saudawi mada (normal black bile) and ghair tabayee (abnormal black bile) which developed as warm-e- sulb (hard swelling) and if the tabayee saudawi mada develops burning it causes sartin (AAIQ, M. (1995). Sartin is mainly classified as

1. Sartin umoomi (generalized Cancer)
2. Sartin Maqami/ uzuvi (Localized cancer)
3. Sartin muhlik (lethal cancer)
4. Sartin ghair muhlik (non-lethal cancer)

The knowledge of certain cancer is Unani can be treated from ancient times (131 to 200 AD) there eminent Unani physician like Jalinoos (Galen), Al- Razi (Rhazes), Al-Zahrawi, and Ibn Sina (Avicenna) have been explained about Sartin and its treatment in their precious book. Jalinoos was the first to describe cancer in a systematic way. He approved Hippocrates (Buqrat) basic theory of Cancer which maintained that causes of Cancer as an exclusive of Black bile (Sauda) administration of an appreciate purgatives helps to remove excessive Black bile (sauda) from the body and their by adopting way which prevents the generation and accumulation of black bile (sauda) in blood vessels as far as possible (Ibn Sina (Avicenna), 1411 H). He also emphasized that the newly formed cancer can be treated through removal of harmful humors from the body and by use of some typical anti-cancer drug. But in the case of advanced cancer, harmful humors must firstly remove from the body by means of purgatives and afterwards eradication of cancerous tumor should be done in the way that all tumor roots are removed. Then adjacent vessel should be pressed in order to remove thick blood.

According to Muhammad bin Zakariya Razi (Rhazes) he mentioned that cancer is a smallest to some hard swelling found in the body. He categorized such swelling found in the body with and without pain. This categorization done on the basis of hard swelling usually develops the secondary to warm swelling and is dependent to other phenomena for its Formation and is never formed preliminary Income Tax cancer is formed primula Lene another feet feature is that the vessel adjacent to non-cancerous swelling at stress and have lower temperature compared to cancerous tumor for painless swelling this is the best sign of their being nature. Al-razi emphasized that during the initial stage of cancer regular venesection and administration of black bile purgatives should be given to prevent accumulation of disease forming humour. Ibn Sina (Avicenna) describe the cancer is from the class of black bill (sauda) swelling

which is caused by the accumulation of excess black bile bill (sauda) which is produced from the burning of Yellow bile (safra). He points that cancer frequently involved the hollow organs and for this reason its prevalence is higher among female's rich vascular organs are more prone to cancer. Avicenna further described some features of cancerous growth as initially it is the size of board been a smaller, hard, spherical dark and slightly warm. Some of them have severe pain, while other have mild pain with some being mostly painless some cancers are prone to ulceration but in some other cases ulceration cancer could become non- ulceration. Avicenna noted that cancer always occurs in hollow organs and that is why it is more frequent in women. When black bile (sauda) becomes oxidized, which act as a precursor of formation of the cancer. Further it may be due to excess use of Garam muhalilath (hot anti-inflammatory drugs) in causes of waram-e-saudawi (black bile inflammation) diseases in reham (uterus).

Black bile (sauda) plays a vital role in the development of Sartin (cancer) black bile purgatives play an important role in early stage of Cancer therapy. But in advanced stage surgery is beneficial.

### Causes of Cancer

1) Abnormal production of Black bile (sauda)  
It has the following basis...

- a) abnormal liver heat
  - b) Weak spleen
  - c) Excessive use of food that helps in the production of Black bile (sauda)
- 2) Burned black bile (Sauda)
  - 3) Burned yellow bile (Safra)
  - 4) Ruined (bad) phelgm
  - 5) Continuous injury/ chronic or persistent scratches / some virus species which may not be the actual cause but they may help in increment of disease

Know that the actual cause of cancer is still not available and the causes mentioned above are specific for production of black bile (sauda) according to ancient physician.

As black bile (sauda) increment is the only actual cause of this disease, ancient physicians believes the above mentioned causes as the cause for cancer.

6) Some of the dietary substance like Masoor Dal, Brinjal, Cauliflower, older age wild animal meat, Beaf, Black wine also causes cancer.

### Signs and Symptoms

- a) Redness on affected area and the remaining part will be yellowish.
- b) Burning sensations

- c) Skin will be more sensitive on affected part
- d) After medication, there will be destruction of tissue as well as morbid matters (fasid or kharab mawad) will come out.
- e) Spasmodic pain( Thashannuji Dard)
- f) Fever, and fatigue
- g) Unexplained weight loss
- h) Lump (Thickening of skin)
- i) According to degree of disease, it will affect more severely and it will start to metastating the nearby structures.
- j) Weakening of surrounding vessels
- k) If the cause is:

Sauda: Tasallub (stone hard lesion)

Safar: burning sensation

Blagham: long causes of diseases, commonly blood cancer  
The affecting area of cancer is very complicated and it is attached to the nearby structures, also it start to affect/ eat healthy structures, nearby vessels get prominent. When safrawi Khilt is burnt (ihtiraq) than it acts like corrosive so the symptoms appear on edges are thick and out warded. Green color fat like matter is visible, wound color is black and the ranches are also green.

### Prevention

Unani Scholars and physician have not only explained the concept of cancer (Sartan) but they firstly focused upon the idea of prevention of disease, instead of treating them, they have described a chapter on knowledge of protecting the health (Ilm Hifz-e-Sehat) in which they stated as the science of regulating the healthy body condition to preserve health. They have categorized this branch in three major areas as:

- (a) Promotion or preservation of health (Hifze Sehat)
- (b) Prevention of disease through non pharmacotherapeutic approach (Taqaddum bil hifz)
- (c) Protection of the susceptible (Tadabeer Abdane Zaeefa)

By creating a balance between humors and by adopting above mentioned knowledge of protection may lead to decrease incidents of cancer (Rushd-1980; Amen-2015).

Prevention can be accomplished by enduring the following principles of Unani Asbab Sitta Zarooriya (Six conditions of Healthy Living by Unani medicine) (Sayyid Kamaludheen-1998).

1. Air (Hawa): Fresh and pollution-free air for breathing and avoid exposure to extreme heat or excessive cold.

2. Food and Drink (Makool o Mashroob): Avoid tobacco chewing and smoking and stopping the use of junk and smoked foods, preserved foods, alcohol, carbonated drinks, etc. don't make excess taking of non-vegetarian diet. Avoiding black bile producing diets such as red meat, dried and salted meat and fish. etc. Taking soft and easily digestible diets. Consuming turmeric, tomatoes, garlic, flaxseed, spinach, broccoli, pomegranates, walnuts, etc. Taking a diet rich in fiber (20-30gm/day).

3. Bodily Movement and Repose (Harkat o Sukoon Badanl)

Avoiding sedentary lifestyle.

Exercising for 30-45 minutes at least five days a week.

4. Psychic Movement and Repose (Harkat o Sukoon Nafsani)

Avoiding mental stress and anxiety.

Avoiding extreme emotions, e.g. anger, fear, sadness.

Lead a spiritual, peaceful life.

5. Sleep and Wakefulness (Naum o Yaqza): Sleeping for six to eight hours.

6. Retention and Evacuation (Ihtilbas o Istifragh) Avoiding constipation; Ensuring proper evacuation, urination, perspiration and menstruation; Avoiding dehydration and ensure retention of electrolytes and minerals.

### Usoole ilaj (Principle of Treatment)

The principle of treatment in cancer management is to regaining the humoral balances, with the help of Islah-e-Jigar and mizaj (temperament), this can be achieved through regimens like laxatives, purgatives, bloodletting, emetics, diuretics and enemas, so as to rid out of the excess and morbid humours from the body.

Prevention of cancer can be best achieved through balanced diet (qualitative and quantitatively) and adequate exercise. Unani physicians emphasized that physis / nature (tabiyat) is the best healer and physician's job to help the physis / nature in healing.

Unani Physicians recommended following usool-e-ilaj (Principle of treatment) in given successive steps:

1. **Tanqiyah Mawad:** For the elimination of Khilt-e-sauda, drugs having the following properties should be administered:-

Munzijat-e-sauda (concoctive)

Mushilat-e-sauda (Purgatives)

Mudir Haiz (Emmenagogue), In case of women

2. **Ta'del-e-Mizaj:** For the correction of Sue Mizaj with the drugs or diet, we should prescribe those with opposite Mizaj (Ilaj-bil-zid) that is,

a. If cause sauda, then prescribe Har Ratab Mizaj (Hot and wet temperament).

b. If the cause safra then prescribe Barid Ratab Mizaj (Cold and wet temperament).

c. If the cause is Balgham then prescribe Har Yabis Mizaj (Hot and dry temperament).

3. **Izala-e-sabab:** Elimination of the existing cause.

#### 4. **Modification of lifestyle**

a. Prevention of diet producing sard wa khushk (coldness and dryness).

b. Avoidance of alcohol, tobacco, stress and environmental pollution.

5. **Ilaj bit tadeer (regimental therapy):** that is

a. Proper exercise and rest

b. Diet therapy

c. Hijamah (cupping), Hammam (Balenotherapy), Dalak (Massage), Shamoom (Aromatherapy), Nutool (irrigation), Qai (Emesis) and fard (venesection) can be done.

6. **Ilaj bil -yad:** Surgical removal of hard swellings  
**Ilaj (Treatment)**

Unani treatment is broadly classified into following headings

1. Ilaj bil Ghiza (Dietotherapy)

2. Ilaj bil Dawa (Pharmacotherapy)

3. Ilaj bil tadeer (Regimental therapy)

4. Ilah bil Yad (Surgery)

#### 1. **Ilaj bil Ghiza (Dietotherapy)**

Ibn sina explained that prevention of cancer progression is done by improving the diet and reinterfocusing the involved organ.

# Diet should be Latheef (easily digestible) and reduced the excess production and accumulation of sauda and also made to cool and refresh the body.

Eg:-

Kaddu (Cucurbita maxima)

Khurfa (Portulaca Oleracea)

Khaer (Cucumis sativus)

Maul Jabn (chees whey)

Maul shaer (Water of Hordeum Vulgare)

Dietary inclusion of beans, cruciferous vegetables are important.

Eg:-

Mongidal, badama, Akhrot.

# diet for sartan safra (cancer due to yellow bile)

Eg:-

Lauki, urai, Tinde, Arvi, Bhidi, Aalu, Wheat, Sivayya, Rawa

Diet for sartan balgam (cancer due to phlegm)

All citrus fruits, Karela, simla mrich, shepu, shevaga, baigam.

#### 2. **Ilaj bil Dawa (Pharmacotherapy)**

# Drugs used for tanqiya-e-mawad are having the properties of munzij (concoctive) and mushil (purgative) for the elimination (Tanqiyah), first give munzj drug for 3 days

Eg:-

Ushare sahithra, bisfaj, ustukhadus, badranjboys, asalusoos, unnab, sapistan.

The given mushily drugs for seven days

Eg:-

Jashanda aftimoon, Elva, Halela siyah, Gariqoon

# In breast cancer thahleel warm zimad (Anti inflammatory paste) is used

#### **Prescription -I**

Bara-e-makko sabz -24 g

Bar-e-kishneezi - 24 g

Barg-e-soya - 24 g

Barg-e-kithmi - 24 g

Poshte kashkash - 24 g

Nix with Roghan-e-gul and apply with luke warm water on affected breast

#### **Prescription -II**

Apply barg-e-sudab paste on affected breast

# Drug for sarthan-e-safra (cancer due to yellow bile)

Kalonji, Haldi-Curcumin, Sadabahar, Tukhm-e-Hayat, Bhoi Amla, Zeera, Asaran, Afsanteen, Adusa, Dhamasa.

# Drugs for sartan-e-balgam (cancer due to phlegm)

Badi Ilaichi, Majeeth, Anjeer, oot siyah, Raai, Moor Makki, Revand Chini.

# Drugs for sartan-e-sauda (cancer dur to black bile)

Babchi, Chiraita, Shahetra, Sarphuka, Aftimoon, Aneesum, Methi.

# Drugs to enhance the immunity

Khamira marvareed, iriyaq Marwareed. Khusta Til Kalan.

For the ulcerative cancer a zimad is recommended for treatment is made of kernels of wheat mixed with frankincense and Armenian bol and made into a zimad by adding rose oil.

Pain associated with cancer can also control with a compound formation prepared by ash of tootiya (copper sulphate mixed with milk and administrated orally).

There are lot of herbs mentioned in Unani classical books which possess anti-cancer activity and scientifically proven to validated our Unani physicians as follows.

**Table 1.**

Botanical Name	Unani Tibbi Name	Mizaj (Temperament)	Type of cancer
<i>Nigella sativa</i>	Kalonji	Har Yabis (Hot and Dry)	Breast cancer
<i>Curcuma longa</i>	Haldi	Har Yabis (Hot and Dry)	Liver, pancreatic, colon, breast, ovary carcinomas
<i>Aloe vera</i>	Elva	Har Yabis (Hot and Dry)	human neuroectodermal tumors
<i>Withania somnifera</i>	Asgandh	Har Yabis (Hot and Dry)	Colon cancer, fibrosarcoma
<i>Allium sativum</i>	Lehzan	Har Yabis (Hot and Dry)	Prostate cancer
<i>Glycyrrhiza galbra</i>	Aslussoos	Murakkabul Quwa (Compound Mizaj)	Prostate cancer
<i>Zingiber officinale</i>	Adrak	Har Yabis (Hot and Dry)	Ovarian cancer
<i>Corcus sotivus</i>	Zafran	Har Yabis (Hot and Dry)	Gastric cancer
<i>Emblica officinalis</i>	Amla	Barid Yabis (Cold and Dry)	Leukaemia
<i>Vitis vinefera</i>	Angoor	Har Ratab (Hot and Wet)	Breast cancer, Prostate cancer
<i>Alpinia galanga</i>	Khulanjan	Har Yabis (Hot and Dry)	Breast adeno carcinoma
<i>Soussurea lapa</i>	Qust	Har Yabis (Hot and Dry)	Leukemia
<i>Trigonella foenum</i>	Methi	Har Yabis (Hot and Dry)	Breast cancer
<i>Semecarpus anacardium L.</i>	Baladur	Har Yabis (Hot and Dry)	Leukemia
<i>Bauhinia variegata (L.)</i>	Kachnar	Barid Yabis (Cold and Dry)	Ovary, prostate, leukemia, breast lungs cancers

### 3. Ilaj bil Tadeer

Unani regimental therapy is better way to improving quality of life in cancer patients regimental therapy for cancer includes Riyazath (Exercise), Fasd (venesection), Hijamat (Cupping), Nutool (irrigation), shamoom (aroma therapy), Dalak (massage), Hammam (Baleno therapy) and Qai (emesis).

# **Riyazat:** Regular exercise and proper rest are important factors. Moderate exercise dissolves the wastes so that it can be easily evacuated from body.

# **Fasd (Venesection):** Fasd of vareede akhal (Medium

cubital vein). It helps to evacuate abnormal humors from the body. But it is restricted to metastasis cases.

# **Hijamat (Cupping):** Hijamat is mainly done for the diversion of morbid matters and evacuation of morbid matters from the body. So it is very helpful for the evacuation of accumulated black bile (sauda) in the initial stage of cancer.

# **Nutool (irrigation):** Nutool helps to accelerate the evacuation and improve the defense mechanism of the body.

# **Shamoom (Aroma therapy):** In shamoom fragrance or scents that completely natural and are derived from resins, flowers, root, herbs, leaves, seeds etc (Naaz, F. 2017).

# **Dalak (Massage):** Dalak disintegrates the waste production, liquefies the viscid matter, produces energy and also strengthens ligament and tendons.

# **Hammam(baleno therapy):** Hammam is recommended for resolving the waste matter and increasing sweating. By this method waste matter evacuated from the body.

# **Qai (Emesis);** Qai is the forceful expulsion or evacuation of the gastric contents through mouth. It is done for the elimination of toxic or morbid materials from the gastrointestinal tract.

### 4. Ilaj bil Yad

Ibu Sina (Avicenna) clearly explained that the small cancerous tumor can be easily excised. If so, the tumor should be eliminated with some part of adjacent normal tissue so that all tumor feeding vessels may also be removed. After cutting the cancerous tumor let it bleed until large blood volume come out of the body cleansing should be performed using proper foods in order to prepare the organs for cutting Avicenna adds this strong caution "Nevertheless, most of the time excision increases the cancer" and in this "there may be great danger if the cancer was in the vicinity of principal organs and the precious vital organs.

### CONCLUSION

Unani system is a Holistic approach to cancer care. The eminent physicians of Unani system of medicine were well aware within the depth knowledge of Cancer, its causes, prevention and its management. The classical text of Unani can be proved to be a source of wisdom for exploring the effect of understanding the disease and its management. Cancer will be eliminated only when people return to a more balanced natural lifestyle and keep the body, mind and spirit free from all kind of impurities and pollution.

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