



**Managing post chemotherapy cardiac complications with homoeopathy**

**Aadil Kasim Chimthanawala**

**MBBS, DNB, BHMS, MD (Homoeopathic Medicine)**

**Professor & Head,**

**Department of Homoeopathic Cardiology  
Shaad Homoeopathic Hospital Complex &  
Research Centre, NAGPUR, Maharashtra,  
INDIA.**

**Correspondence:**

**[adilchimthanawala123@gmail.com](mailto:adilchimthanawala123@gmail.com)**

**KEY WORDS: homoeopathy, chemotherapy, complications, hypertension, cardiomyopathy, myocarditis, #teamdraadil; #dilkisevaaadilse**

**INTRODCUTION**

As advancements in the field of oncology have grown, not only malignancies have become a bit easier to tackle but even the life-expectancy after therapeutic intervention has tremendously increased. Cancer has indeed become a manageable disease in today's era. It requires early detection, periodic surveillance and coordinated therapeutic decision making. It is therefore imperative for cancer survivors to limit co-morbid illnesses. Many cancer survivors are at a great risk from cardiac disease as from recurrent cancer. The therapeutic options for patients with cancer now include increasingly complex combinations of medications, radiation therapy and surgical intervention. Many of these therapies have potential adverse metabolic and / or cardiac effects jeopardizing the healing of the morbid state. It has been observed that the severity of such toxicity depends on several factors such as the molecular site of action of the drug agent, the immediate and cumulative dose, the method of administration, the presence of any underlying cardiac condition, patient demographics, current or previous treatment with

other antineoplastic agents, etc. Cardiotoxic effects can occur immediately during administration of the drug, or they may not manifest themselves until months or years after the patient has been treated.

The department of Homoeopathic Cardiology, The National Academy of Homoeopathy, India carried out a study to evaluate the potential of homoeopathic remedies in the management of post-chemotherapeutic metabolic and cardiac complications.

**REVIEW OF LITERATURE**

When one reviews the potential cardiovascular complications of anticancer agents, several variables must be considered. Each chemotherapeutic agent has unique cardiac effects as well as the ability to potentiate the adverse effects of other agents. Radiation therapy may augment the toxicity. Let us review certain chemotherapy agents and their potential adverse effects on the cardiovascular system.

**1. Anthracyclines/Anthraquinolones**

Doxorubicin, Daunorubicin and epirubicin are used to treat hematologic & solid Cancers. Acute cardiotoxicity may manifest as nonspecific ST-segment and T-wave abnormalities while chronic cardiotoxicity is in the form of congestive heart failure (CCF), and cardiomyopathy due to direct myocardial injury.

**2. Alkylating Agents**

Busulfan and Cyclophosphamide are used in the treatment of leukemia. Cardiotoxicity: pericardial & endomyocardial fibrosis, CCF. Cisplatin is notorious in causing retrosternal chest pain, palpitation & elevated cardiac enzymes indicative of myocardial infarction, hypertension, Left Ventricular Hypertrophy, Ischemic Heart Disease & Myocardial Infarction as long as 10 to 20 years after the remission of metastatic testicular Ca. Nephrotoxicity can be due to hypomagnesemia & hypokalemia, which in turn can cause cardiac arrhythmias.

**3. Antimetabolites**

5-fluorouracil (5-FU) is used in the treatment of many solid tumors. Cardiotoxicity is in the form

Indexed in:





of IHD without underlying coronary artery disease (CAD). The drug Capecitabine is currently used in the treatment of breast and gastrointestinal cancers and is less toxic than 5-FU. Other reported cardiotoxic effects associated with capecitabine include angina or MI, arrhythmias, ECG changes, and cardiomyopathy.

#### 4. Antimicrotubule Agents

Paclitaxel is employed in the treatment of solid tumors and has recently been used to coat stents for cardiovascular use. Its Cardiotoxicity is in the form of sinus bradycardia, heart block, Ventricular Premature Contractions, ventricular tachycardia and Thrombosis.

Vinca is extensively used in regimens for leukemia and lymphoma. It causes autonomic neuropathy, angina & MI induced by coronary spasm.

#### 5. Monoclonal Antibodies

Alemtuzumab (a humanized IgG<sub>1</sub> directed against CD52); Bevacizumab (a humanized monoclonal IgG<sub>1</sub> antibody that binds to and inhibits the activity of human vascular endothelial growth factor); Cetuximab (a human / mouse chimeric monoclonal antibody that binds to the human epidermal growth factor receptor); Rituximab (a chimeric murine / human monoclonal antibody against the CD20 antigen) and Trastuzumab (recombinant humanized IgG<sub>1</sub> monoclonal antibody that selectively binds to the human epidermal growth factor receptor 2 protein (HER2)) - these agents are used in hematologic Cancers & solid tumors. Their side effects include hypotension, fever, dyspnea, hypoxia, urticaria, pneumonia death.

#### 6. Cytokines

- Interleukin-2 (IL-2), a T-cell growth factor and Denileukin diftitox (Ontak), an IL-2/diphtheria toxin fusion protein have been used for the treatment of metastatic renal cell carcinoma and melanoma. High-dose can result in adverse hemodynamic effects similar like hypotension, vascular leak

syndrome, respiratory insufficiency arrhythmias, MI, cardiomyopathy and myocarditis.

- Interferon- $\alpha$  is approved for the treatment of many types of cancer can cause flu-like symptoms, hypotension or hypertension, tachycardia, and nausea and vomiting. In severe cases, angina and MI have been reported.

7. All-trans Retinoic Acid, a vitamin A derivative, is used in the treatment of acute promyelocytic leukemia. Its adverse effects include fever, dyspnea, hypotension, pericardial and pleural effusions, rarely respiratory distress, pulmonary infiltrates, pulmonary edema, and acute renal failure, substantial decline in the LV ejection fraction, Fatal MI and thrombosis

#### 8. Arsenic Trioxide

Used in the treatment of refractory or relapsed acute promyelocytic leukemia, it causes QT prolongation in >50% of patients, sinus tachycardia, nonspecific ST-T changes and even torsades de pointes.

#### 9. Imatinib Mesylate

A novel agent used in the treatment of chronic myelogenous leukemia and other malignancies, is a specific inhibitor of the BCR-ABL tyrosine kinase found in several types of malignant cells. It is associated with a significant incidence of edema, which can progress to severe fluid retention and result in pericardial or pleural effusions or generalized third-space fluid accumulation.

#### 10. Pentostatin

A purine analogue used in the treatment of hairy cell leukemia and other hematologic malignancies may have several cardiotoxic effects including MI, CHF, and arrhythmias.

#### 11. Thalidomide

Thalidomide currently is used to treat a variety of hematologic and solid malignancies. It is generally well tolerated. The major cardiotoxic effects are edema, sinus bradycardia and rarely deep venous thrombosis.



#### 12. Etoposide

Employed in the treatment of refractory testicular tumors and small-cell lung carcinoma, it commonly causes hypotension. Myocardial ischemia and MI have also been documented.

#### 13. Homoharringtonine

Used in the treatment of leukemia, it can be associated with severe hypotension, premature ventricular contraction, ventricular tachycardia and atrial fibrillation.

### AIMS

To study the potential of homoeopathic remedies in the management of post-chemotherapeutic metabolic and cardiac complications.

### MATERIALS & METHODS

- A prospective study was carried out from 1/2/16 to 1/2/17 in total 260 cancer cases that had undergone chemotherapy and presenting to the OPD's and IPD of The National Academy of Homoeopathy, India with various complications. Of these, only 38 cases were selected on pre-defined inclusion and exclusion criteria that had cardiac complications. The venues of the study were -

Shaad Hospital Complex & Research Centre, Itwari railway Station, Nagpur

"Aadil Homeo Heart Care Centre" Hanuman Lane, Sitabuldi, Nagpur

"Aadil Homeo Heart Care Centre" Gokulpeth, Nagpur

- A detail case-taking was done on a Standardized case card.
- The cases were then subjected to routine & special laboratory and radiological investigations
- It was then classified into one of the five types as follows -

Case Type I = Natural case having a greater number of clear mental and physical generals. The approach used was to administer a

constitutional similimum in proper potency and dose.

Case Type II = Incurable case having advanced pathological or structural changes. The approach used was to administer a symptomatic remedy in low potency and if needed frequent repetition.

Case Type III = One-sided disease, meaning cases having few or many incomplete symptoms. The approach used is to administer a Nosode based on the past or family history in high potency.

Case Type IV = Settled case having other co-morbid conditions for which the patient is already taking medicines and on the time of presentation has no symptoms. The approach used here was to try to withdraw as many symptomatic drugs from the regimen as possible. If certain symptoms appear, then a symptomatological similimum is prescribed in moderate potency and if needed frequent repetition.

Case Type V = Mixed case having other co-morbid conditions for which the patient is already taking medicines and on the time of presentation has many incomplete symptoms (of the disease or even of the drugs). The approach used here was to prescribe a symptomatological similimum in low potency and if needed frequent repetition.

- The cases were then repertorized and a symptomatic similimum selected and administered in the required potency
- If there were very few symptoms then the remedy was given on the basis of "Cardiac Protocols" designed by the Department of Homoeopathic

Indexed in:



Scientific Indexing Services



JIFACTOR



INTERNATIONAL COMMITTEE OF MEDICAL JOURNAL EDITORS

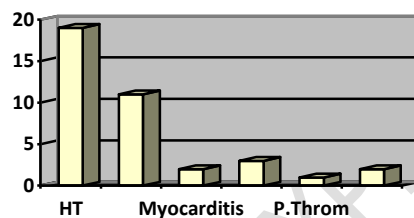




- Cardiology, The National Academy of Homoeopathy, India.
- A diet plan based on the Blood Group of the patient was administered
- Light exercises and / or massage was advised
- Follow -up was done weekly, fortnightly or monthly, depending upon the case at hand. The second prescription was based depending upon the action of the first prescription. Re-investigations (laboratory and / or radiological) were done as per the case.

## OBSERVATIONS

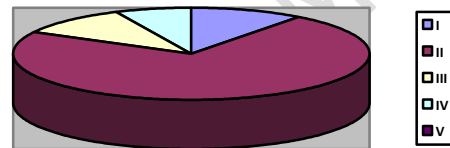
A] Of the total 160 cancer patients who presented with various complications of different systems after undergoing chemotherapy, 38 patients were specifically studied who presented with metabolic / cardiovascular complications after chemotherapy.



1. Accelerated Systemic Hypertension – 19 (50 %)
2. Cardiomyopathy - 11 (28.9%)
3. Myocarditis – 2 (5.2%)
4. Angina pectoris – 3 (7.8%)
5. MI - 0
6. Arrhythmias - Sinus bradycardia, heart block, VPC, ventricular tachycardia – 2 (5.2%)
7. Hypotension - 0
8. Peripheral Thrombosis -1 (2.6%)

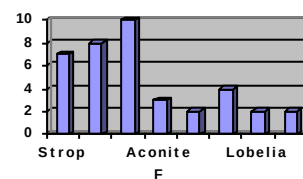
B] Case Types that presented to us commonly were

- Case Type I = 3
- Case Type II = 21
- Case Type III = 3
- Case Type IV = 2
- Case Type V = 10



C] The commonly used homoeopathic remedies

- Strophanthus- 7
- Antim Tart- 8
- Carbo- Veg- 10
- Aconite Ferox- 3
- Cactus- 2
- Arsenic- 4
- Lobelia- 2
- Aspidospermia- 2



D] Results of the therapy

- Complete Palliation
- Partial symptomatic relief
- No-Relief

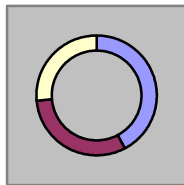
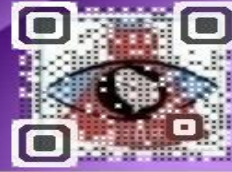
May 2018; 5(2):3-7

# CLINICAL And EXPERIMENTAL HOMEOPATHY

A peer-reviewed International Online EJournal

ISSN 0974 - 9799

<http://journal.sukulhomeopathy.com>



■ Comp Pall  
■ Part Relief  
■ No Relief  
■ Slice 4

## CONCLUSIONS

Thus on the observations we can infer that homoeopathic remedies do have a potentiality of treating or atleast managing metabolic / cardiac complications occurring after chemotherapy.

Indexed in:



JIFACTOR

