

Lesson 20: Respiratory and Cardiometabolic Support in Oncology

1. Importance Of Respiratory And Cardiometabolic Care In Cancer Patients

Respiratory and cardiovascular systems are frequently stressed in oncology. Tumour location, surgery, radiotherapy, chemotherapy, infections, anaemia, thromboembolic events and co-morbidities (hypertension, diabetes, obesity, COPD, IHD) all contribute to:

- Cough, breathlessness, wheeze and secretions
- Post-RT lung fibrosis and chest wall restriction
- Palpitations, chest discomfort, reduced cardiac output
- Metabolic syndrome, dyslipidaemia, weight gain or loss, fatigue

In Ayurvedic language this largely reflects disturbances in:

- Prāṇavaha srotas and Udāna-Prāṇa-Vyāna Vāyu
- Avalambaka Kapha and Hṛdaya sthāna
- Medovaha and Rasavaha srotas
- Rasa-Rakta-Māṃsa-Meda dhātu

Cytoveda integrates classical formulations to support these systems alongside modern oncology and cardiology. Respiratory and cardiometabolic support sits within:

- **Tri-Thera Spectrum (TTS)** – Targeted Therapy (organ/system focus) and Immune Therapy (terrain and resilience)
- **QuantumMatrix 5-D** – Doṣa-Dhātu Samavat, Srotoshodhana, Rasayana and Satva Avajaya

This lesson focuses on how Cytoveda's respiratory and Hṛdaya-Medohara formulations are used in cancer practice.

2. Respiratory Support - Clinical Patterns And Ayurvedic View

Common oncology-related respiratory patterns include:

- Chronic or recurrent cough (dry or productive)
- Breathlessness on exertion or at rest
- Post-RT tracheitis, bronchitis or lung fibrosis
- Pleural effusion and mediastinal compression
- Post-operative atelectasis, reduced lung expansion
- Recurrent respiratory infections

Ayurvedically, these often represent:

- Vāta-Kapha disturbance in Prāṇavaha srotas
- Kapha-Pitta irritation of upper airway and kantha
- Udāna Vāyu dysfunction affecting speech and respiration
- Avalambaka Kapha ama, especially in smokers or pre-existing COPD/asthma

Cytoveda addresses this with a combination of:

- Rasa-Vati formulations (Kaphaketu Ras, Shwaskuthar Ras)
- Classical churna and vati (Talisadi, Sitopaladi, Lavangadi Vati, Lavan Bhaskar)
- Ghansatva tablets and Mahākāśaya tablets for Prāṇavaha and Kantha Rasayana

3. Core Respiratory Formulations In Cytoveda Oncology

3.1 Kaphaketu Ras And Shwaskuthar Ras

Kaphaketu Ras

- Strong Kapha-Vāta-modulating Rasa formulation
- Acts on deep-seated Kapha obstruction, cough, wheeze and heaviness in chest
- Relevant in Kapha-dominant respiratory patterns with thick sputum and heaviness

Shwaskuthar Ras

- Focus on Śvāsa-Kāsa presentations
- Supports bronchodilation and Kapha mobilization from Prāṇavaha srotas

In oncology these are reserved for:

- Selected cases with significant Kapha accumulation and bronchial involvement
- Situations where sputum is thick, expectoration is difficult and lungs are congested, but mucosa is not severely ulcerated

Cautions:

- Frail, very Pitta-prone or mucositis-dominant patients may not tolerate "hotter" formulas.
- Dosing must consider concurrent bronchodilators, steroids and cardiac status.

3.2 Talisadi And Sitopaladi Churna

Talisadi Churna

- Kapha-Vāta-modulating, Deepana-Pācana and Kāsahara
- Useful in chronic cough with mild phlegm, low-grade infection patterns, post-RT cough where mucosa is not raw

Sitopaladi Churna

- Milder, more soothing Kāsahara formulation
- Suitable in dry irritative cough, throat sensitivity and post-viral/post-RT cough

Oncology relevance:

- Often used in small, frequent doses with honey or ghee (where allowed), under dietary and glycaemic considerations.
- Sitopaladi is preferred when cavities and tracheobronchial mucosa are fragile or ulcerated.

3.3 Lavangadi Vati, Sarivadi Vati, Khadiradi Vati

These vatis provide local action in mouth, throat and upper airway:

- **Lavangadi Vati** – for sore throat, mild cough, excessive mucus in oropharynx
- **Sarivadi Vati** – for kantha, voice and ENT mucosa support, it is also indicated for various ear problems
- **Khadiradi Vati** – for oral and pharyngeal mucosa, ulcers, halitosis and mild infections

In oncology they are commonly used in:

- Head & neck cancers (oral cavity, pharynx, larynx)
- RT-induced mucositis and throat discomfort (when patient is able to suck/hold the vati)
- Post-surgical changes affecting swallowing and voice

They are often paired with:

- **Kanthya Mahākāśaya Tablet**
- **Udumbar and Mulethi Ghansatva Tablets** (for mucosal soothing, as covered earlier)

3.4 Kasahara, Shwasahara And Kanthya Mahākāśaya Tablets

These Mahākāśaya-based tablets are crucial Rasayana for Prāṇavaha and Kantha systems:

- **Kasahara Mahākāśaya Tablet** – reduces chronic cough tendency, improves clearance of mild Kapha and supports mucosal healing
- **Shwasahara Mahākāśaya Tablet** – supports lung function, dyspnoea control and Prāṇavaha srotas strength, often used in chronically breathless patients with stable disease
- **Kanthya Mahākāśaya Tablet** – supports voice, throat comfort and post-RT or post-surgical kantha healing

They are usually introduced:

- Once acute infection or crisis is under control
- With close observation of breathlessness, oxygen saturation and radiology reports
- Aligned with physiotherapy and chest rehabilitation exercises

4. Respiratory Support - Integration Principles

In Cytoveda oncology protocols:

- Respiratory formulations are layered over modern management (bronchodilators, inhaled steroids, antibiotics, antifungals, RT, surgery).
- Emphasis is placed on early identification of red flags: new-onset severe breathlessness, hemoptysis, chest pain, fever, stridor – all needing urgent allopathic evaluation.
- Long-term respiratory Rasayana is particularly important in survivors of lung or mediastinal RT, smokers, and patients with pre-existing COPD or asthma.

QuantumMatrix mapping:

- D2 Doṣa-Dhātu: balancing Vāta-Kapha/Pitta in Prāṇavaha srotas
- D3 Srotoshodhana: clearing airway, improving prāṇa flow
- D4 Rasayana: system-wise respiratory resilience

Tri-Thera mapping:

- Targeted Therapy: organ-specific Prāṇavaha srotas care
- Immune Therapy: reduced infection frequency, better tissue resistance

5. Cardiometabolic Patterns In Oncology

Common cardiometabolic issues in cancer patients include:

- Chemo- or trastuzumab-induced cardiotoxicity (reduced ejection fraction)
- RT-induced mediastinal and coronary damage
- Thromboembolic risk (DVT, pulmonary embolism)
- Hypertension, dyslipidaemia, insulin resistance
- Weight gain on hormonotherapy or steroids
- Weight loss and cardiac deconditioning in advanced disease

Ayurvedically, these patterns reflect:

- Vāta-Kapha and Rasa-Rakta-Meda-Majja involvement at Hṛdaya sthāna
- Vyāna Vāyu and Avalambaka Kapha imbalance
- Medovaha srotas dushti and Ama accumulation

Cytoveda uses a combination of Hṛdaya, Medohara and Ojovardhak formulations to support this axis.

6. Cardioprotective And Hṛdaya Support Formulations

6.1 Prabhakar Vati

Primary role:

- Classical Hṛdaya support, Vyāna Vāyu regulation and cardiac tonic action

In oncology:

- Considered in patients with history of structural heart disease, mild LV dysfunction or palpitations where cardiologist agrees
- May be used in low doses in survivorship or stable phases to support cardiac resilience

Cautions:

- Always secondary to cardiologist-guided pharmacotherapy for heart failure or arrhythmias
- Requires periodic ECG and ECHO follow up in high-risk patients

6.2 Hridayarnava Ras

Primary role:

- Hṛdaya support with Meda and Kapha targeting
- Addresses sluggish circulation, heaviness, chest tightness with Meda/kapha component

Oncology relevance:

- Obese patients with IHD risk factors and central adiposity
- Survivors on long-term hormonotherapy or steroids with weight gain and dyslipidaemia

Needs careful use in:

- Acute coronary syndromes, decompensated heart failure and uncontrolled hypertension, where primary management must remain allopathic and emergency-based.

6.3 Arjuna Ghansatva Tablet

Primary role:

- Classical cardiotonic and Hṛdaya Rasayana, supports myocardial nutrition and function

Oncology relevance:

- Patients exposed to cardiotoxic drugs (e.g., anthracyclines, trastuzumab), under cardiologist supervision
- Survivors with borderline EF or mild diastolic dysfunction
- Individuals with anxiety-related palpitations, when structurally safe

Arjuna Rasayana is often combined with:

- Hṛdaya Mahākāṣaya Tablet
- Phalatrikadi as metabolic support
- General Rasayana like Amla or Ashwagandha when appropriate

6.4 Hṛdaya Mahākāṣaya Tablet

This tablet is based on the Charakokta Hṛdaya Mahākāṣaya group and is used for:

- Systemic Hṛdaya Rasayana
- Support of circulation, emotional heart, and Avalambaka Kapha balance

It is especially suitable in:

- Long-term follow-up of patients with cardiotoxic therapy exposure
- Emotional heart strain (grief, anxiety about recurrence) along with Satvavajaya and psychotherapy

7. Medohara And Metabolic Risk Modulation

7.1 Medohar Guggul

Primary role:

- Meda-dhātu regulation, support for dyslipidaemia, obesity and metabolic syndrome patterns

Oncology relevance:

- Overweight or obese patients with metabolic risk (post-menopausal breast, endometrial, colorectal cancers)
- Survivors on hormonotherapy where weight gain and dyslipidaemia threaten long-term outcomes

Medohar Guggul is usually:

- Introduced gradually, after checking LFT/RFT and lipid profile
- Combined with diet, physical activity and behavioural modifications

7.2 Lekhaniya And Triptighna Mahākāśaya Tablets

These Mahākāśayas are used for:

- **Lekhaniya Mahākāśaya Tablet** – Meda-Kapha Lekhana, reducing pathological fat but not physiological dhātu
- **Triptighna Mahākāśaya Tablet** – reducing pathological craving and over-eating tendency, stabilising satiety

They can support:

- Weight management
- Metabolic control
- Appetite regulation in patients tending towards overeating, especially under stress

7.3 Shramahara And Jwarahara Mahākāśaya Tablets

These contribute to:

- Cardiometabolic symptom relief by reducing chronic fatigue (Shramajanya) and low-grade inflammatory "flu-like" states (Jwarahara) which indirectly burden the cardiovascular system.

They are relevant in:

- Post-chemo and RT fatigue with heaviness and mild inflammatory terrain
- Survivors with persistent low energy despite stable disease

8. Integration With Modern Cardiology And Oncology

Cardiorespiratory support at Cytoveda is always integrated with:

- Baseline and periodic ECG, ECHO, chest imaging, spirometry where indicated
- Standard oncology protocols for chemo, RT and hormonal therapies
- Cardiologist-supervised treatment for hypertension, heart failure, arrhythmias, IHD and thromboembolic disease

Ayurvedic formulations are used to:

- Support organ resilience
- Optimise metabolic terrain
- Improve functional capacity and symptom control

Not to:

- Replace anti-hypertensives, anticoagulants, anti-arrhythmic drugs or life-saving cardiology interventions.

Monitoring includes:

- Blood pressure, heart rate, symptoms of orthopnoea, PND, edema
- Renal and liver function tests when Rasaaushadhi and Guggulu yogas are used
- Lipid profile and glycaemic parameters in metabolic-risk cases

9. Illustrative Clinical Situations

9.1 Post-RT Lung Cancer With Chronic Cough And Dyspnoea

Features: persistent dry cough, exertional breathlessness, RT fibrosis on imaging, ECOG 1-2.

Possible Cytoveda approach:

- Sitopaladi or Talisadi Churna in small doses, depending on dryness vs Kapha component
- Kasahara and Shwasahara Mahākāśaya Tablets at gentle doses
- Lavangadi or Sarivadi Vati if throat irritation persists
- Respiratory physiotherapy, breathing exercises, Satvavajaya for anxiety around breathlessness

All under pulmonologist/oncologist supervision.

9.2 Breast Cancer Survivor On Trastuzumab With Borderline EF

Features: mild LV dysfunction on ECHO, fatigue, occasional palpitations, ECOG 1.

Possible Cytoveda approach:

- Arjuna Ghansatva Tablet as Hṛdaya Rasayana (if cardiologist agrees)
- Hṛdaya Mahākāśaya Tablet in low dose
- Phalatrikadi as metabolic and hepatic support
- Lifestyle guidance: graded exercise, sleep hygiene, stress management

9.3 Hormone-Treated Breast Cancer Survivor With Metabolic Syndrome

Features: central obesity, elevated triglycerides, borderline fasting sugar, no active disease.

Possible Cytoveda approach:

- Medohar Guggul, Lekhaniya and/or Triptighna Mahākāśaya Tablets
- Phalatrikadi for hepatic-metabolic axis
- Hridayarnava Ras or Arjuna Ghansatva depending on cardiac profile
- Structured diet and activity plan, counselling for emotional eating and fear of recurrence

10. Key Take-Home Points

1. Respiratory and cardiometabolic support are integral parts of integrative oncology, not optional add-ons, because Prāṇavaha srotas and Hṛdaya-Medovaha axis are constantly stressed by cancer and its treatments.
2. For respiratory care, Kaphaketu Ras, Shwaskuthar Ras, Talisadi, Sitopaladi, Lavangadi/Sarivadi/Khadiradi Vati, and



Kasahara-Shwasahara-Kanthyā Mahākāśaya Tablets form a flexible toolkit, selected according to Kapha-Vāta-Pitta patterns, mucosal status and stage.

3. Cardioprotective support uses Prabhakar Vati, Hridayarnava Ras, Arjuna Ghansatva Tablet and Hridya Mahākāśaya Tablet, always secondary to cardiologist-guided management.
4. Metabolic risk modulation in survivors relies on Medohar Guggul, Lekhaniya and Triptighna Mahākāśaya Tablets, Shramahara and Jwarahara Mahākāśaya, plus lifestyle measures.
5. All interventions are mapped to Tri-Thera Spectrum (organ-targeted and immune/terrain support) and QuantumMatrix 5-D (Doṣa-Dhātu, Srotas, Rasayana, Satva), and must be calibrated to Agni, ECOG status and organ function.

11. Review Questions

1. Describe the main respiratory clinical patterns seen in oncology patients and map at least four Cytoveda respiratory formulations to specific patterns.
2. How do Kasahara, Shwasahara and Kanthyā Mahākāśaya Tablets differ in their primary focus within Prāṇavaha and Kantha systems?
3. Outline a safe integrative cardioprotective plan for a patient receiving potentially cardiotoxic chemotherapy, including modern and Ayurvedic components.
4. Discuss the role of Medohar Guggul, Lekhaniya and Triptighna Mahākāśaya Tablets in long-term metabolic remodelling for breast cancer survivors on hormonotherapy.
5. Why is close collaboration with cardiologists and pulmonologists essential when using Hṛdaya and respiratory formulations in cancer practice?