

## PREVENTION AND MANAGEMENT OF BREAST CARCINOMA (POST-OPERATIVE) WITH AYURVEDA: A CASE REPORT

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### ABSTRACT

**Introduction:** Breast cancer develops in breast tissue. In India, 1, 62,468 new cases and 87,090 deaths were reported for breast cancer in 2018. *Ayurveda* is the ancient science and have huge storage of medicine and basic principles to manage various diseases including breast carcinoma. **Aim and Objectives:** To evaluate the preventive effect of *Ayurvedic* medicine on breast carcinoma (post-operative). The specific objective is to improve the patients' quality of life **Material and Method:** Patient of breast carcinoma (post-operative) presented in Cancer Consultation and Treatment Unit NIA- Jaipur was treated by *Ayurveda*. Case – A 46 years normotensive, non-diabetic patient of

breast carcinoma (post-operative) came in cancer consultation and treatment unit NIA- Jaipur, with c/o swelling over face, itching at the site, pain in upward movement of left hand, callosity on stitches. Mammography report suggestive of speculated mass lesion. Biopsy suggestive of invasive ductal Ca grade 2. Patient was suggested 7 cycles of chemotherapy and 21 cycles of radiotherapy which patient refused to take and opted for *Ayurveda* medicine. Patient was treated with *arbudharkshaya*, *sadabahaar swaras*, *shatavri kalp*, *kanchnar guggulu*, *kaishor guggulu*. **Result and Conclusion:** After approximately 5 months of treatment CECT suggestive of no obvious pathology. The above ayurvedic management protocol was effective in controlling of regrowth; however, the protocol should be tried in more samples for scientific validation of this procedure.

**KEYWORDS:** *Arbud*, cancer, breast carcinoma, radiotherapy, chemotherapy.

## INTRODUCTION

Breast cancer develops in the lining cells (epithelium) of the ducts (85%) or lobules (15%) of the glandular tissue. The malignant development is initially restricted to the duct or lobule ("in situ"), where it usually causes no symptoms and has a low risk of spreading (metastasis).

In situ (stage 0) tumors can grow over time and invade the surrounding breast tissue (invasive breast cancer), then spread to neighboring lymph nodes (regional metastasis) or other organs in the body (distant metastasis). It is because of widespread metastasis that a woman dies from breast cancer. In 2020, there were 2.3 million women diagnosed with breast cancer and 685 000 deaths globally. As of the end of 2020, there were 7.8 million women alive who were diagnosed with breast cancer in the past 5 years, making it the world's most prevalent cancer. Estimated Number of New Cases 2022 of breast cancer till now are- 287,850- all ages, 47,550- younger than 50, 240,300- older than 50, 143,360- younger than 65, older than 65- 144,490.<sup>[1]</sup>

Ayurveda, the oldest Indian indigenous medicine system based on plant drugs, has been used to prevent or suppress various tumors since ancient times. And nowadays, scientists are more interested in studies on complementary and alternative medicine for cancer management. According to the '*Charaka*' and '*Sushruta Samhitas*,' cancer is described as an inflammatory or non-inflammatory swelling and is referred to as either '*Granthi*' (minor neoplasm) or '*Arbuda*' (major neoplasm) (major neoplasm). The nervous system (*Vata* or air), venous system (*Pitta* or fire), and arterial system (*Kapha* or water) are three Ayurvedic fundamentals that are critical for normal body function. In malignant tumors, all three systems (*Tridoshas*) become out of control and lose mutual coordination, resulting in tissue damage and a critical condition. *Tridoshas* cause an excessive metabolic crisis, which leads to proliferation. All disorders of the female breast are referred to as "*Sthana Roga*.", *Sushruta Samhitha* has the first mention on *Sthana Roga*. Diseases of *Sthana* mentioned in classics like *Stana vidradhi*, *Sthana Keelaka*, *Stana ruja* are the classically explained as *Stanashritha Vyadhi*.<sup>[2] [3] [4]</sup>

## AIMS AND OBJECTIVES

**Aim:** The aim of this case study is to develop a successful Ayurvedic treatment protocol for the prevention and management of post-operative breast cancer.

**Objective:** The specific objective is to improve the patients' quality of life.

## CASE HISTORY

Patient description: A 46 years normotensive, non-diabetic patient of breast carcinoma (post-operative) living in Jaipur, belonging to middle socio-economic group, having c/o swelling over face, itching at the site, pain in upward movement of left hand, callosity on stitches came in cancer consultation and treatment unit NIA- Jaipur on 18-03-19 with

Menstrual History: Patient attained menarche at age of 13 years and had regular cycles thereafter with 28 days interval and 4-5 days of bleeding cycle. Dysmenorrhea was absent and clots were ++.

Past History: Mammography report on 23-07-2018 suggestive of well-defined spiculated mass lesion in upper outer quadrant of left breast. Biopsy on 26- 07-2018 Suggestive of invasive duct carcinoma (NOS), grade 2, trucut biopsy, left breast.

Treatment history: left breast conservative surgery + left axillary lymph node dissection specimen. Patient was suggested 7 cycles of chemotherapy and 21 cycles of radiotherapy which patient refused to take and opted for Ayurveda medicine.

Personal history showed loss of appetite, constipated bowel, itching and pain at site.

She was undergone thoroughly physical examination and the systemic examination revealed tenderness at the site of stitches.

## THERAPEUTIC INTERVENTION

Informed consent was obtained for publication in the research field without disclosing the patient's identity. During the first visit (18-03-19) the medications mentioned in table 1 were advised.

### Treatment prescribed: table no.: 1

First visit: 18-03-19				
s.no	Medicine	dose	Interval	Anupan
1.	<i>Arbudharkshaya + sadabahar swaras</i>	40 ml each	BD – Empty stomach	-
2.	<i>Shatavari kalpa</i>	1tsf	BD – Empty stomach	Turmeric milk
3.	<i>Kanchnar gugulu</i>	2 tab	BD- after meals	Crushed with warm water.
4.	<i>Kaishore gugulu</i>	2 tab	BD- after meals	Warm water
5.	<i>Mahamanjishthadi kwath</i>	20 ml	BD- after meals	Equal amount of water.
6.	<i>Lavanbhaskar churna</i>	5 gm	BD- in-between meals	With Butter milk.

**Pathya:** Morning Diet: 150 gm Milk with turmeric 2 gram and seedless *Draksha* 4-5 piece. Lunch: Green leafy vegetable like ridged guard, bottle gourd, Indian round gourd, bitter gourd, spinach, cauliflower, tomato, amaranth leaves, fenugreek leaves. Cereals: green gram split, *Dalia* (porridge): wheat, barley, Amaranth, Buckwheat flour, Swank paddy. Evening diet: Apple, orange, coconut water, Grapes, pomegranate. Dinner: Same as lunch. At bed time: 150 gm Milk with turmeric 2 gram and *Draksha* 4-5 pieces. She was advised for daily exercise, *Yoga* and *Pranayam*. Both *Yoga* and *Pranayam* were advised for 15 minutes each. Some *Yogas* and *Pranayam* that had been suggested are: *Anulom Vilom*, *Suryabhedhi Pranayama*, *Nadi Shodhan Pranayam*, *Pavanmukt asan*, *Shashank Asan*, *Gomukh asan*, *paschimutan asan*.

### CRITERIA OF ASSESSMENT

Clinical Assessment of Improvement & QOL in post-operative Breast cancer The Patient registered was looked for any changes in clinical manifestations, QOL (Quality of Life) and Pathological investigations.

#### 1. Assessment shows the Clinical Improvement shown in table 2 and figure 1.

Table no: 2

S. no	Symptoms	At 1 <sup>st</sup> day of intervention	Follow up 30 days after treatment	Follow up 2 <sup>nd</sup> -5 <sup>th</sup> months after treatment.
1.	Swelling over face	3	1	0
2.	Itching at the site	3	2	0
3.	Pain in upward movement of left hand	3	1	0
4.	Callosity on stiches	3	3	2
5.	Loss of appetite	3	1	0
6.	Pain at the site	3	2	0
7.	Constipated bowel	3	0	0
8.	Loss of appetite	3	1	0
9.	Weakness	3	2	1
10.	Sleep disturbance	3	2	0

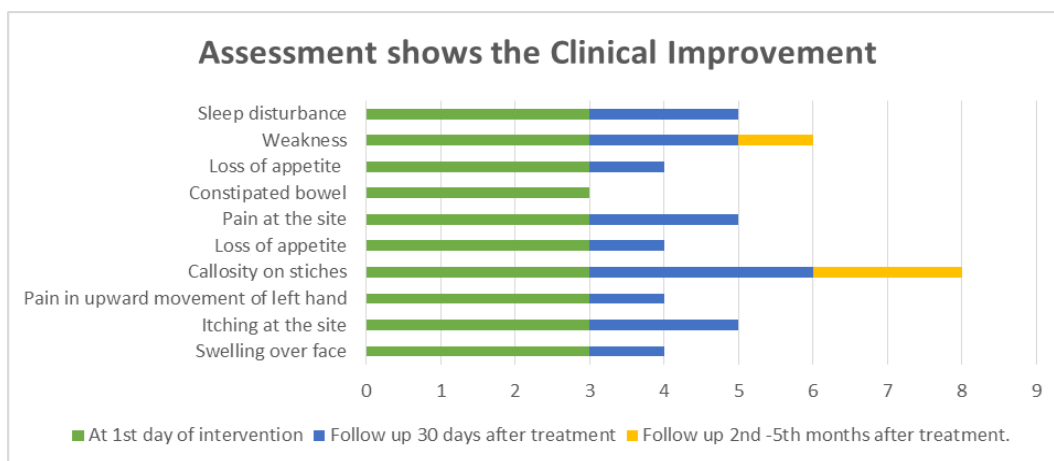


Figure: 1

**2. Assessment of QOL (quality of life) in Cancer Survivors<sup>[5]</sup>:** The Quality of life of the patients was assessed on the basis of above scale, given in table 3 and figure 2.

**Table 3: QOL (quality of life) in Cancer Survivors-changes before & after treatment.**

S.no	Parameters	Case	
		BT	AT
1.	Menstrual disturbance	4	2
2.	Aches/pain	6	1
3.	Fatigue	5	1
4.	Disturbance in Sleep	6	1
5.	Disturbance in Appetite	7	2
6.	Bowel Disturbance (Constipation)	7	1
7.	Gastric Disturbance (Nausea)	4	1
8.	Urinary Disturbance	1	1
9.	Cancer treatment distress	5	2
10.	Fear of future	6	3
11.	Initial distress	4	2
12.	Disturbance in memory	5	2
13.	Depression	5	2
14.	Fear recurrent of cancer	5	4
15.	Fear of spread of cancer	5	4
16.	Unhappiness	4	3
17.	Anxiety	6	2
18.	Financial burden	3	3
19.	Burden on Employment	1	1
20.	Disturbance in Personal relationships	3	2
21.	Disturbance in Home activities	6	3
22.	Feel isolated	5	2
23.	Family distress	5	1
24.	Disturbance in religious activity	5	3
25.	Disturbance in spiritual activity	5	3
26.	Spiritual Disturbance	5	3

27.	Disturbance in Life purpose	6	2
28.	Disturbance in Positive change	6	3
29.	Uncertainty	6	4
30.	Disturbance in Hopefulness	5	3

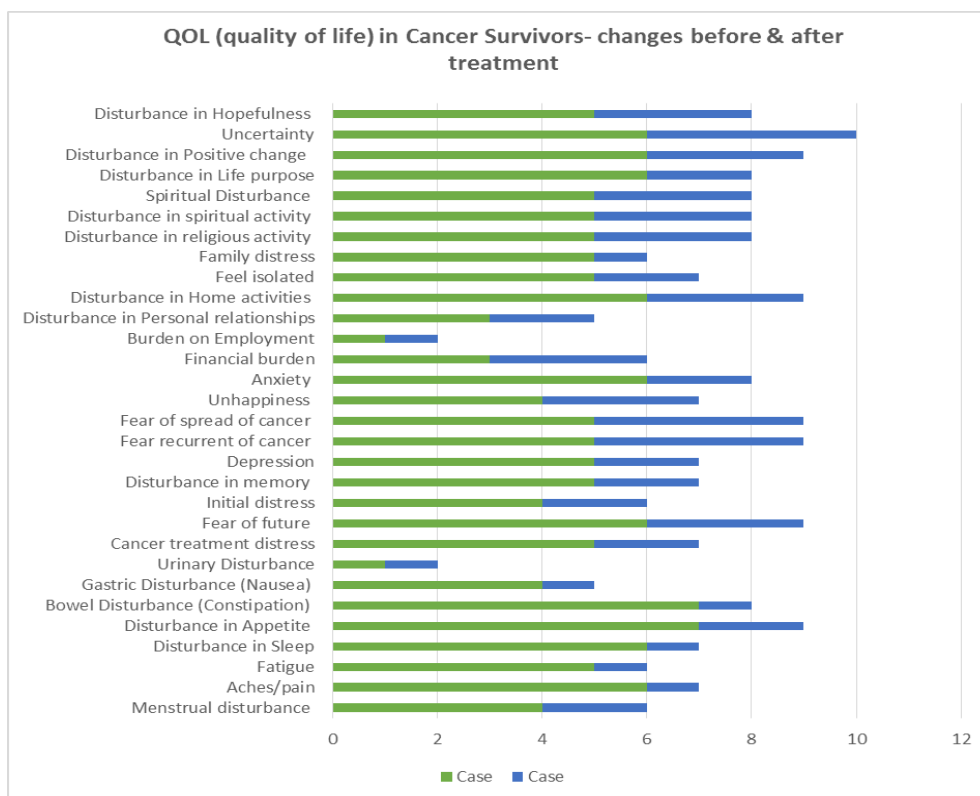


Figure no: 2

### 3. Pathological Assessment

This combination of medicines was continuously given for 5 months to the patient. Then the CECT thorax on 27/08/19, revealed no evidence or no visible pathology.

### OBSERVATION AND RESULTS

The current case was evaluated after administering Ayurvedic medicines and a diet to a post-operative breast carcinoma patient for 5 months. Significant improvement was seen in the clinical presentation of the signs and symptoms. Specific symptoms such as loss of appetite, pain at site, anorexia, irregular bowel, weakness, sleep disturbance, and constipation were significantly reduced. The patients' quality of life was significantly improved as measured by the QOL (quality of life) in Cancer Survivors, as shown in table 3 and figure 2. After 5 months of treatment, the CECT thorax on 27/08/19 revealed no evidence or visible pathology.

## DISCUSSION

Conventional cancer treatment typically involves the administration of a single therapeutic agent that lacks specificity to the target or targets and causes apoptosis of healthy cells, resulting in undesirable side effects. Ayurvedic treatment entails the administration of a single or a combination of different plant extracts and minerals (polyherbal/herbomineral). This provides synergism in action and reduces drug-related side effects such as cachexia (including nausea, weight loss and anorexia). The *Vata-Kapha* Dominance *Tridoshas* are important in the pathogenesis of *Granthi Roga* (neoplasm), and *Rakta* (blood), *Mamsa* (tissues), and *Meda* (lipid) *Dushyas* may also be involved (perturbations). To alleviate *Vata-kapha dosha*, medications should possess the *Vata-Kaphahara* property, whereas medications to alleviate *Dushy* should have *Rakta shodhaka* (blood purifier) and *Lekhana* (scrapping or dissolving) properties. Furthermore, medicines with *Deepana* (stomachic) and *Pachana* (digestive) properties are required to combat *Agnimandhya* (lack of digestive fire). As a result, Ayurvedic medicines with *Vata-Kaphahara* (which helps relieve vitiated *Vata* and *Kapha Doshas*), *Rakta shodhana* (blood purification), *Lekhana* (bioscraping), and *Shothahara* (anti-inflammatory) attributes may be beneficial in neoplastic diseases. The first drug used in this case was *Abudharkshaya*, which is a polyherbal drug having *vata kaphahar properties* and is self-prepared by the National Institute of Ayurveda, Jaipur, Rajasthan, India, which contains anti-cancer drugs and has shown promising results in the management of cancer patients at the National Institute of Ayurveda's Cancer Consultation and Treatment Unit, Rajasthan, Jaipur, India. Next drug which was given with *Arbudharkashaya* is *Sadabahar swaras* (vinca rosea), It belongs to the genus *Vinca* and *oleander* and has long been regarded as an important medicinal plant. In a study on human skin cancer cell line A431, the methanol extract of the plant was found to have a positive effect on cell proliferation. Alkaloids found in the aerial parts of plants such as vincristine, vindoline, vinblastin, vinflunine, and catharantin differ from vincristine and vinblastine, and two combinations of plant secondary metabolism are used as anticancer drugs today. The effects of this plant's alkaloids on cancer cells of the breast, prostate, and cervix (MCF-7, PC3-1C, and HeLa) were studied, and it was discovered that these alkaloids' tubular protein links changed its structure by blocking cancerous cell division; these antioxidant compounds will prevent cancer cells from progressing.<sup>[6]</sup> Also, it is *Ushan virya* and thus is *vata kapha shamak*. The second drug used is *Shatavari kalpa*, contains *Shatavari* which nourishes all the diminished *Dhatus* and also acts on *Garbhashaya* by improving ovarian function and balancing female hormones.<sup>[7]</sup> Because *Asparagus racemosus* root-induced antioxidant



activity may be responsible for anticancer activity. According to the findings of the study, shatavarins (containing shatavarin IV) rich fraction AR-2B (containing 5.05% shatavarin IV) from *Asparagus racemosus* roots exhibited potent anticancer activity as demonstrated by in vitro cytotoxicity using MCF-7, HT-29, and A-498 cell lines, as well as EAC induced tumour in mice.<sup>[8]</sup> *Asparagus racemosus* contains phytoestrogens that can be used to treat breast cancer. The current study examines the antiproliferative activity of *A. racemosus* extracts in T47D cancer cell lines in vitro. The results showed that aqueous methanol and methanol extract had superior antiproliferative activity to bazedoxifene (standard), ethyl acetate, and petroleum ether extract.<sup>[9]</sup> The next drug of the study was *Kanchnar guggulu*, which is an Ayurvedic compound that comes in the form of a spherical pill or *vati*, is black or brownish-black in colour, and has a bitter taste thus acts as *kaphashamak*. It is included in the Indian Ayurvedic Formulary and the Indian Ayurvedic Pharmacopoeia. The formula contains approximately 12 different constituents, including *Bauhinia variegata* stem bark (*Kanchnar*), *Terminalia chebula* pericarp (*Haritaki*), *Terminalia bellerica* pericarp (*Bibhitaka*), *Phyllanthus emblica* pericarp (*Amalaki*), *Zingiber officinale* rhizome (*Sunthi*), *Piper nigrum* fruits (*Marica*), *Piper longum* fruits (*Pippali*), *Crataeva nurvala* stem bark (*Varuna*), *Elettaria cardamomum* seeds (*Ela* or *Suksmaila*), *Cinnamomum zeylanicum* stem bark (*Tvak*), *Cinnamomum tamala* leaves (*Tejpatra*), and *Commiphora wightii* oleo-resins purified (*Guggulu-Shuddha*). *Deepan*, *Pachan*, *Vatta-Kaphashamak*, *Shoth-har*, *Lekhan*, and *Bhedi* are properties of *Kanchnar* and *Guggulu* that help to alleviate the cardinal symptoms of minor tumours. *Guggulu* contains oleo-resins, which have anti-inflammatory (*shothhara*) properties. *Gulma* (abdominal lump), *Gandamala* (cervical lymphadenitis), *Apachi* (chronic lymphadenopathy/scrofula), *Granthi* (cyst), *Vrana* (ulcer), *Kustha* (skin diseases), *Bhagandara* (fistula-in-ano), and *Slipada* all can be treated with it. The majority of the formulation's key constituent plants or phytochemicals have shown outstanding anticarcinogenic properties.<sup>[10], [11], [12], [13]</sup> *Kaishore guggulu* is next used drug as the patient had secondary skin issues like itching and swelling so this drug is best known for its antiallergic, antibacterial, and blood purifying properties. *Kaishore guggulu* can help maintain healthy joints, muscles, back pain, and connective tissue. It acts as an anti-aging skin health promoter, natural blood cleanser and cures skin diseases. Again, another used drug was *Mahamanjisthadi kwath* for the skin issues of the patient, which is a potent detoxifying medicine that purifies the blood, reduces inflammation, improves skin radiance, and prevents infection. It also has a cooling effect on the body, and the antioxidant-rich decoction aids in detoxification. Lastly, *Lavana Bhaskara Churna* has the *Vatanulomana*



property, which reduces *Udara daha* by neutralising increased *Pitta Pachaka* and helps in *agnivardhan*.

With all the *tridoshaj shamak* drugs and particular diet plan according to the patient plus *yoga* and *pranayama* helped patient to improve the symptoms as well as her quality of life symptomatically as well as pathologically, as no visible pathology was seen after the 5 months course of the treatment.

## CONCLUSION

The above ayurvedic management protocol was effective in controlling of regrowth of breast cancer. Accurate diagnosis at the right time and proper selection of drugs and strict adherence to *pathya ahara vihara* is the key to success in this field. As this is single case report the protocol should be tried in more samples for scientific validation of this procedure.

## CONSENT OF PATIENT

The patient's consent was obtained for publication and procedure without disclosing the patient's identity.

## LIMITATION OF STUDY

This treatment protocol needs to be tested in a larger number of cases in order to generate an evidence-based document that uses standard treatment protocols for validation.

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