



# NewsLetter

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## EDITORIAL

### RECOVERING COMMUNITY OF CANCER SURVIVORS!!

Never doubt that a small group of thoughtful committed citizens can change the world.  
Indeed it is the only thing that ever has. (Margaret Mead)

People suffering from cancer share a common history and share a common dream for a better life. They don't judge each other by age, stage or type of cancer but support each other. They have struggled alone but recovered together. It truly becomes a recovering community; a community of hope, strength, acceptance, love and resiliency. Regardless of when or why it started or who or which institutions participated, recovery is a gift that has been given to all of them by God.

The emotional support groups are one of the greatest communities in the world. These communities are not the one consisting of houses, buildings, streets, shopping malls and schools but they reside in the very

hearts and souls of people who share a common bond. Each member of the "recovering community" has successfully overcome tremendous obstacles in their lives and in doing so, find themselves in a better place physically, emotionally and spiritually than they ever thought possible.

People of this group inspire and entertain newly enrolled patients and make them part of recovery community. New recruits quickly discover that these stories are not about pain and despair but rather about hope and resiliency. These support groups narrate their own stories to help others. New patients begin their journey in solitude, they soon find many others who share similar experiences and are willing to help them. I heard one of the cancer survivors say **"God can do anything.....the secret is in letting him"**.

Often facing daunting circumstances and ever present self doubt, people confront their fears of the future in order to change and find a better way to live. We may meet people who believe that they needed no one's help but begin to reach out to others and be touched in return. These support groups can surround

new patients with life affirming healthy behaviors. New recruits get filled with love in the face of great odds to not only overcome but thrive and grow from difficult, seemingly insurmountable circumstances. The stories of cancer patients are a mixture of hope, inner strength and serenity.

Supporting each other is an effective tool and consequently the recovering community constantly grows. When something works so well, it will become part of people's lives.

One of the most cherished virtues in the life of a recovering individual is the resurrection of joy and one of the greatest indicators of recovery is a desire to share what patient has found. Cancer Sahyog is about joy and life changes, an emotional support group that binds hundreds of people together in a new community. This is the recovering community. They inspire patients and convey the hope and love, the essential qualities of the recovering people or changing people. If we don't change, we don't grow. If we don't grow, we aren't really living.

**When love and skill work together, expect a masterpiece** (John Ruskin)

### NOVEMBER IS LUNG CANCER AWARENESS MONTH

*know the symptoms:*

- B** Blood when you cough or spit  
**R** Recurring respiratory infections  
**E** Enduring cough that is new or different  
**A** Ache or pain in shoulder, back or chest  
**T** Trouble breathing  
**H** Hoarseness or wheezing  
**E** Exhaustion weakness or loss of appetite

If any of these symptoms are troubling you, see your doctor



**Dr. A. K. Dewan**  
Director - Surgical Oncology

# BREATHING ADAPTED RADIOTHERAPY FOR BREAST CANCER

## Introduction

In India, the age adjusted incidence rate of carcinoma of the breast was found as high as 41 per 100,000 women for Delhi, followed by Chennai (37.9), Bangalore (34.4) and Thiruvananthapuram District (33.7)

Historically radical surgery involving removal of the whole affected breast was considered inevitable to reduce the risk of local recurrence. However, with the advances in diagnostic radiology and increasing awareness, Breast cancer is being detected in earlier stages and the management of early breast cancer with conservative surgery and adjuvant whole breast radiotherapy is now a widely established protocol alternative to mastectomy.

## Problems with Breast Radiotherapy

Although the use of adjuvant radiotherapy for breast cancer reduces the risk of local and loco regional recurrences as well as breast cancer death, some radiation is inevitably delivered to the heart and lungs, and for older radiotherapy techniques, an increased risk of cardiac mortality has been observed in radiotherapy for left-sided breast cancer. For these women, a major concern is the dose of radiation delivered to the heart especially when majority of these women receive cardiotoxic chemotherapy and targeted therapy. In this context vascular events stand out as predominant cause of death. More recent work has shown a positive correlation between the radiation-exposure to the left ventricle measured as left ventricle volume receiving at least 50 % of the prescribed dose and appearance of perfusion defects in the left ventricle in patients with left sided breast cancer. There was a strong dependence on volume of Heart (Left Ventricle) included in the radiation field, with hardly any defects occurring in patients, where the left ventricle was outside the 50 % of the prescribed dose. The left anterior descending (LAD) coronary artery is located in the anterior part of the heart, and is therefore likely to be exposed to high-absorbed dose in breast radiotherapy. Higher incidence of coronary artery disease has been seen among women irradiated for left-sided breast cancer, especially for LAD related

disease. Until there is evidence of a threshold absorbed dose below which there is no excess risk of cardiac mortality and morbidity, it seems appropriate to aim at minimizing the absorbed dose to the heart and LAD.

## Solutions to Minimize Cardiopulmonary Toxicity

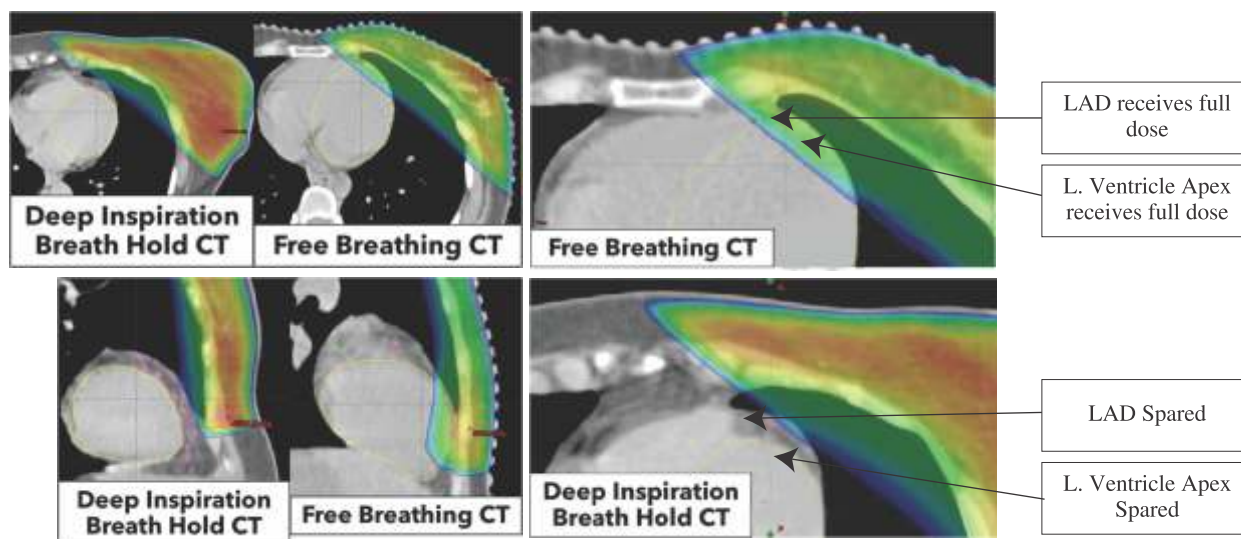
Dose to the heart can be reduced by using specialized technique known as intensity modulated radiotherapy (IMRT) but the major problem with this technique is, it cannot adapt as per the motion of the chest wall because of respiration. Planning a radiotherapy dose which precisely targets the intended area and spares the heart doesn't mean anything when respiratory motion blur the benefits of this advance technique. The dose to lungs increases the chances of radiation-induced pneumonitis. Together with the use of cardiotoxic systemic therapy this highlights the need of improved Radiotherapy delivery techniques to reduce irradiation to heart and lung. Breathing adapted radiotherapy (BART) of breast cancer seems to provide reduced radiation doses to these structures without compromising target coverage.

In a recent review of different cardiac sparing techniques such as BART, prone patient positioning, IMRT, proton beam radiotherapy and partial breast radiotherapy were evaluated. Several studies show that different forms of BART, such as enhanced inspiration gating (EIG) and deep inspiration breath hold (DIBH), can reduce the absorbed dose to the heart and lung, while keeping the same target coverage and as a consequence of such dose reduction, the cardiac and pulmonary complication probabilities can be reduced.

During inspiration the spatial distance between the target volume and the heart is increased, excluding the heart and LAD from the high-dose regions. By only irradiating during the end-inspiration phase of the breathing cycle the absorbed dose to the heart and LAD can be decreased. At the same time the lung density is decreased, reducing the relative lung volume irradiated. Hence BART provides a possibility to reduce the cardiopulmonary dose without compromising target coverage.

## Dr. Kundan Singh Chufal

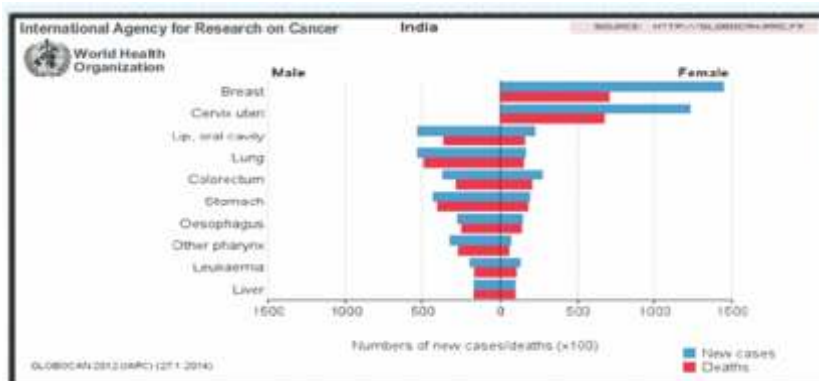
Sr. Consultant and Chief of Breast and Thoracic Radiation Oncology



# OCTOBER - BREAST CANCER AWARENESS MONTH

Breast cancer is the most common cancer in women in India. It accounts for 25 - 31% of all cancers in women. According to an ICMR research, in India every 1 in 28 women develop breast cancer during their life time. Cervical cancer which once dominated the Indian scenario has now been left behind by breast cancer in terms of both incidence and mortality.

The number of breast cancer cases in all age groups is rising rapidly. The blame seems to lie with India's economic development and rapid urbanization, leading to westernization of Indian women. Essentially, this means that urban Indian women marry late, have fewer children, and breastfeed them less, all of which increase the risk by increasing their exposure to oestrogen, and therefore their risk of developing the cancer, over their lifetime. Urban Indian women also tend to have more western diet, leading to obesity which increases the risk of post-menopausal breast cancer. Menopause renders the ovaries, a main source of oestrogen dysfunctional, but in overweight, post-menopausal women, androgen transforms into oestrogen in fat tissues.



## Age Shift: Breast cancer now more common in young women

In India the average age of developing a breast cancer has undergone a significant shift over last few decades. Indian women tend to get this disease quite early compared to their counterparts in the Western world. While the majority of breast cancer patients in West are Postmenopausal and in their 60s and 70s, the picture is quite different in India with premenopausal patients constituting about 50% of all patients.

According to GLOBOCAN (WHO), for the year 2012 (latest) an estimated 70218 women died in India due to breast cancer, more than any other country in the world. (Second China – 47984 deaths and third US – 43909 deaths)

We can see from the above figure, in terms of incidence, USA tops the list followed by China. Even though both these countries have much

SOURCE : <a href="http://BLOGOCAN.IRCC.FR">HTTP://BLOGOCAN.IRCC.FR</a>			
International Agency for Research on Cancer			
World Health Organization			
Year: 2012			
Metric	Country	Count	ASR/P
CSO : Breast			
Incidence - Female	India	144,937	25.8
	United States of America	232,714	92.9
	China	187,213	22.1
Mortality - Female	India	70,218	12.7
	United States of America	43,909	14.9
	China	47,984	5.4
Prevalance (5yr) - Female	India	396,991	92.6
	United States of America	970,693	753.7
	China	697,327	129.3

more women suffering from breast cancer (than India), their death rate is not as high (as India). The reason? Most women here present in a fairly late stage; either because of their lack of awareness, or, in many cases, their doctor's lack of awareness. Breast awareness means that a woman must be 'aware' or 'familiar' with the structure of her breasts by examining them regularly, so that she can herself detect any small change that may have happened, and which could possibly be an early sign of a cancer. Breast Awareness also includes, being 'aware' about the various 'symptoms' and 'signs' of breast cancer, so that, while performing their monthly self

examinations, she can keep in mind those symptoms. It also includes awareness about screening with clinical breast examination & mammography after the age of 40.

There is no way we can prevent breast cancer totally, but we can definitely detect it early and treat adequately. Only and only with early detection, can we achieve a longer survival.

As part of our commitment to raise awareness, we at RGCIRC dedicated whole October month to breast cancer screening. It is our annual campaign to increase awareness about the disease and to promote screening. Awareness talks and free screening camps were arranged at various places as part of outreach activities. In the OPD, screening mammography was done at 50% discount throughout the month and clinical breast examination was offered free of cost.

**Dr. J. G. Sharma / Dr. Indu Aggarwal**  
Department of Preventive Oncology



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### CME - IMA Amritsar, Punjab

RGCIRC organized a CME in association with IMA Amritsar on Sunday, 24th September 2017 at IMA Bhawan, Amritsar, Punjab. Dr. Rupinder Sekhon, Sr. Consultant and Chief of Gynae Surgical Oncology delivered a lecture on "Robotic in Gynae Oncology" and Dr. Swarupa Mitra, Sr. Consultant & Chief of Gynecological and Genitourinary Radiation Oncology spoke on "Evolution of Radiotherapy in Gynaecological Carcinoma" in the said CME.

### Congratulations to Dr. D. C. Doval

Dr. D. C. Doval, Director – Medical Oncology was awarded with Geeta Ramchandra Gandhi Oration in 37th Indian Cooperative Oncology Network (ICON) Conference at Hotel Pride Plaza, Aerocity, Delhi in September 2017 and Times of India Healthcare Achievers Award - Legends Oncology in August 2017. He is also felicitated with Certificate of Appreciation at Best of ASCO India at Chandigarh in July 2017.



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Architect's Impression of RGCIRC (post expansion)

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