





# Rajiv Gandhi Cancer Institute and Research Centre

A Unit of Indraprastha Cancer Society

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## **EDITORIAL**

#### PERSONALITY OF A CANCER SURVIVOR

RGCIRC organized 'Survivors Meet' on 26.07.2015 for Breast Cancer patients and for Head & Neck Cancer patients on 27.07.2015. I interacted with many of these survivors and studied the psychological profile of these exceptional patients.

These survivors are real fighters and are generally successful in their careers also. They continue to work and remain employed during illness and return to work soon. They are receptive and creative but sometimes hostile, having strong egos and sense of their own adequacy. They have high degree of self esteem and self love. They are generally not docile. They are intelligent with a strong sense of reality. They value interactions with others. Although concerned with their own welfare, each one seemed to have a sort of personal radar. They are also tolerant and concerned with others. One of the caregivers said 'I don't know why do good people always suffer'. Cancer survivor replied 'Diamond cannot be polished without friction, Gold cannot be purified without fire, good people go through trials and may suffer but with experience their life becomes better and not bitter. I said 'you mean to say such experience is useful'. Cancer survivor replied, " yes, certainly yes, experience is a hard teacher. Life gives the test first and the lessons afterwards."

The survivors admit that they have changed in their approach, attitude and character after this disease. They may have many opposites meaning biphasic traits. They can be both serious and playful, shy and aggressive, logical and intuitive so on and so forth. They become paradoxical people and are more flexible than most other people. They clean up messes and make things safer and more efficient. In short they give of themselves, leaving the world better than they found it. They may seem uninvolved at

times but show up when there's trouble.

When he/she starts with treatment, he can be childlike but not childish. This behavior may be indicated by child's innocent curiosity, open minded acceptance of criticism and day dreaming etc. After completion of treatment, survivor reaches synergistic level of functioning and maturity. He develops empathy for other people and keeps a positive outlook and confidence in adversity. Such people have a feeling of getting smarter and enjoy life more as they get older. They like to take risks and experiment into their own life. I asked one of the survivors, "How do you stay motivated in tough times"? He responded "Always look at how far you have come rather than how far you have to go. Always count your blessings, not what you are missing."

One gender difference I found in these survivors is that women tend to understand realities better than men. Women are more used to accepting and working with their emotions, whilst men's lives tend to resolve around their work. Survivors often change jobs, moving from a career that bores them but gives them security into one that brings meaning to their lives. One of the patients questioned in "Open Forum session" How can I get the best out of Life? The survivor sitting on the Dias replied "Face your past without regret? Handle your present with confidence. Prepare for the future without fear. Life is wonderful if you know how to live. Life is a mystery and not a problem to solve."

**Dr. Dewan AK**Medical Director

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### INTERNAL HEMIPELVECTOMY FOR PELVIC BONE SARCOMAS

The management of pelvic tumors is seen with skepticism due to an intricate anatomy, large volume disease with late presentation, vicinity of viscera and rarity of pelvic tumors. Around 5% of soft tissue sarcomas and 15-20% of all primary bone tumors are located in pelvis, most common being Osteosarcoma (35%), followed by Chondrosarcoma (30%) and Ewings sarcoma (16%). Though neoadjuvant chemotherapy has proven to be beneficial and radiation may be an option in some, surgical resection remains to be the main treatment modality for most of these tumors. External hemipelvectomy (hind quarter amputation), first performed by Girard et al in 1895, was associated with a major functional and cosmetic disadvantage and thus, set the stage for Internal Hemipelvectomy (IHP) as an alternative. Internal hemipelvectomy, the limb salvage surgery for pelvic tumors, involves resection of part or whole of the pelvic bone, while preserving the lower limb. Over the years, IHP has emerged as a reliable surgical option with acceptable functional outcomes, overcoming the perioperative challenges and concerns regarding oncological efficacy.



Fig 1- Type III internal hemipelvectomy performed for osteosarcoma pubic bone

The goal of IHP is to achieve a functional limb with preserved neurovascular structures without compromising the oncological safety. As per the selection criteria defined by O'Conor and Sim, IHP may be performed if any two of the three critical anatomical structures including sciatic nerve, femoral neurovascular bundle and hip joint (periacetabular region), can be preserved. However, certain aspects hold it from being commonly performed. Be it the ill- understood anatomy of this flat bone, the strong muscular and ligamentous attachments or the close relation of viscera and the neurovascular structures; the anatomy of the pelvis is difficult to understand and its surgery difficult to perform. The intraoperative challenges like massive blood loss and prolonged duration of surgery, the perioperative complications and morbidity and the concern regarding functional and oncological outcomes in long term add to the limitations.

However, the scenario is changing with multispecialty management at tertiary care centers. The advancements in imaging and inputs from radiologist improve understanding of tumor extent and patient selection. A specialized anesthetist, routinely managing similar high-risk surgeries, tackles the critical period in a better manner. A team of experts in various surgical fields, like musculoskeletal, urological and gastrointestinal oncology, manages resection of even locally advanced pelvic tumor and its subsequent complications. An additional benefit is gained from medical and radiation oncologists in increasing the life expectancy and from physiotherapists in rehabilitation and better functional outcomes. Thus, teamwork has the potential to widen the application of the limb salvage surgery in general and IHP in particular.

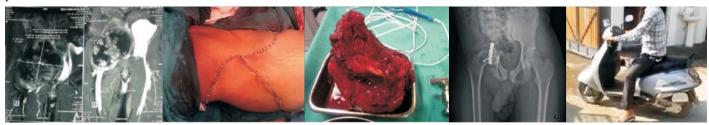


Fig 2 – Type I + II internal hemipelevectomy performed for chondrosarcoma pelvis

The functional and oncological outcomes of IHP have been proven to be acceptable and making IHP a routine. Enneking and Dunham classified IHP into four types as per the part resected (iliac wing in Type I, periacetabular in Type II, pubic rami in Type III and sacrum in type IV). As most of the pelvic tumors have a large size at presentation, a

combination is usually required for complete resection. Reconstruction in the form of arthrodesis, pseudoarthrosis, prosthesis or tumor bone re-implantation/allograft is required for periacetabular resection (Type II). All these options are acceptable with their own pros and cons and the decision needs to be personalized for each patient. An average blood loss of 2.7-3.8 liters, mean duration of 4.5-7.5 hours and hospital stay of 7-30 days are reported for IHP. An acceptable local recurrence rate (15-36%) and subsequent death (23-33%) points towards oncological safety and efficacy, comparable to that for external hemipelvectomy.

The functional outcomes of IHP are encouraging, as most patients can walk (70-90%), walk without support (51-59%) and can even negotiate stairs. The results are contrary to dismal outcomes of EHP, where most patients are crutches/ wheel chair bound or require waist and shoulder strap prosthesis. Moreover the quality of life after IHP surpasses that after EHP as evident by excellent functional score (67.3 vs. 26.3%), emotional acceptance score (74% vs. 62.5%), mean MSTS (Musculoskeletal Tumor Society) score, bladder bowel function (82.6% vs. 52.6%), return to work (60% vs. 0%) and rehabilitation.

The perioperative complications include wound infection (7-50%), flap necrosis (13-29%), visceral injury (6%), arterial thrombosis (3%) and recurrent hip dislocation (17%). As the complication rate appears to be high, it is prudent to say that the rate is less than that in EHP and the associated morbidity is surely less than the dearth of a functioning lower limb. Moreover, most of these are managed successfully with a conservative approach, while a few may require another procedure. Besides primary bone and soft tissue tumors, the role of IHP is also being explored in isolated pelvic metastases and locally advanced/recurrent malignancies of pelvic organs, and are an area of intense debate.

In a recent review of IHP performed in 25 patients at our institute over last 6 years, pelvic chondrosarcoma, osteosarcoma, soft tissue sarcoma and Ewing sarcoma were the common diagnoses (Figures 1 and 2). Local recurrence was seen in 4 patients, and all patients were independent walkers (10 patients could walk without support). Thus, IHP is an oncologically safe and functionally acceptable procedure if there is a careful patient selection, meticulous preoperative planning and diligent postoperative monitoring. An upsurge in this highly specialized procedure is expected with multispecialty management and expansion of indications.

Dr Swati H Shah, Senior Resident, Department of Surgical Oncology Dr Akshay Tiwari, Consultant Orthopedic Oncologist and In charge, Musculoskeletal Oncology Unit, Department of Surgical Oncology

# CME - IMA LUDHIANA

RGCIRC organized a CME Programme on Oncology in association IMA Ludhiana on Saturday, 11th July 2015. Dr. Vineet Talwar, Sr. Consultant & Chief of GU Medical Oncology Services delivered a talk on "Cervical Cancer Vaccine", Dr. Swarupa Mitra, Consultant & Chief of Gynecological and Genitourinary Radiation Oncology Services spoke on "Managing Common Side Effects of Radiation Therapy". The talks were attended by more than 120 doctors.



# **WELCOME TO RGCIRC FAMILY**



**Dr. Rajan Arora** has been appointed as Sr. Consultant – Reconstructive Surgery. He earned his MBBS from BRD Medical College, Gorakhpur & his MS from Motilal Nehru Medical College, Allahabad. He did his M.Ch. from IMS, BHU, Varanasi. He has wide experience in the management of Reconstructions of breast & head & neck cancers. He brings vast experience in microvascular reconstructive surgery.

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# RAJIV GANDHI CANCER INSTITUTE & RESEARCH CENTRE HOLDS SUPPORT EVENT FOR CANCER VICTORS OF HEAD & NECK CANCER





On the eve of world Head and Neck Cancer Day, July 27, 2015, the Institute hosted its Head & Neck Cancer Survivors' Meet – SOUL Change, where experts and survivors shared experiences and reiterated the need for better post cure management. Experts emphasized on comprehensive treatment of head and neck cancers; on managing the disease and life after cancer.

### BREAST CANCER SURVIVORS' MEET - "SPARSH EK PEHAL"





In another initiative called **SPARSH**, RGCIRC along with Anandi Sheroes, an association of breast cancer survivors, held a survivors' meet in an effort to touch the lives of all those women who had been diagnosed with breast cancer and have lived through it, fought it and have come out victorious. During the meet various interactive sessions between doctors and survivors took place to clear doubts.

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