EDITORIAL

WORLD CANCER DAY - 4TH FEBRUARY

World Cancer Day (WCD) is a global observance that helps raise people's awareness of cancer and how to prevent, detect and treat it. Cancer is a leading cause of death around the world. Low income and medium income countries are harder hit by cancer than high resource countries. It is essential to address the world's growing cancer burden and to work on effective control measures. WCD is a part of world cancer campaign which responds to the Charter of Paris adopted at the World Summit against cancer for the New Millennium on Feb 4, 2000. It called for a strong alliance between researchers, health care professionals, patient's, Governments, industry partners and media to fight cancer.

The theme of WCD 2016 to 2018 is "We can, I can". The aim of WCD is to save millions of preventable deaths each year by raising awareness and education about cancer, and pressing the governments across the globe to take action against this disease. The day is a key opportunity for everyone affected by cancer to work together to ensure that world leaders stick to the promises they made at the UN summit in relation to reducing the impact of cancer. The theme explores how everyone together and individually can do their part to reduce the global burden of cancer. The campaign outlines actions that the communities and individuals can take to save lives by achieving greater equity in cancer care and making fighting cancer priority at the highest political levels. Around the world, communities hold functions, walks, seminars, information campaigns and other events to raise awareness and educate people on how to fight cancer through screening and early detection, through healthy eating, physical activity, by quitting smoking, by urging government officials to make cancer issue a priority. Individuals can make healthy life style choices that include avoiding tobacco, limiting alcohol, eating a healthy diet and burning ones calories. Individuals can spread knowledge about signs and symptoms of cancer and participate in cancer screening. They can support patients as survivors and even share stories about their own experiences and join support groups, they can rehabilitate themselves as well as other patients physically, socially and emotionally.

Communities can call on Govts. and NGO'S to commit adequate

Communities can educate people about the link between life style behaviors and cancer risk and dispel myths that lead to social stigma attached to cancer. They can encourage schools, workplaces to implement nutrition and physical activities policy; they can improve access to cancer care, make cancer care affordable to whole population. Of the plethora of initiatives, one of the movement is "No hair selfie, a global movement to have "hairticipants" shave their head, physically or virtually to show a symbol of courage for those undergoing cancer treatment. Images of participants are then shared over social media.

Cancer Research UK has started an initiative "Get your unity Bond to Promote Cancer Research". Each Unity bond costs 2 Euros. These funds will help next generation of cancer research and will support thousands of scientists, doctors and nurses.

Let us explore how everyone as a collective or as individual can do our part to reduce the global burden of cancer. Just as cancer affects everyone in different ways, everyone has the power to take various actions to reduce the impact that cancer has on individuals, families and communities. World cancer day gives you a chance to reflect on what you can do, make a pledge and take action. We can inspire and act, create healthy schools, create healthy workplaces, challenge perceptions, improve access to cancer care and invest in cancer control. I can make healthy life styles choices and make my voice heard.

Various other activities which can be done are: TV, radio, Newspaper advertisements and articles focusing on cancer; nationwise campaigns targeted to help people minimize risk of cancer within their families; raising funds for cancer research; public information kits, booklets and posters.

Remember World Cancer Day is a global observance and not as public holiday "We can and I can" make a difference.



A NEW HORIZON OF RECONSTRUCTIVE SURGERY IN RGCIRC: ERA OF FREE FLAPS

Reconstructive surgery is a branch of plastic surgery which deals with reconstruction and restoration of the damaged body part. Ideally it should be same as removed tissue in appearance and functionality. In cancer patients reconstruction should also provide faster wound healing to carry on their further radiotherapy / chemotherapy. If any patient is left without reconstruction it will leads to delayed wound healing, infection, disfigurement and permanent scar that will hinder his socially active life. There are various reconstructive options available for post tumor ablation defects like split thickness skin graft, loco regional or distant pedicled flaps, perforator based flaps and free flaps. All of these options have their own limitations; skin grafts provide only surface cover and cannot reconstruct the defect. Pedicled flaps have limitations of size and pedicle length. Most importantly their end result of functional and aesthetic outcome is compromised. Introduction of free flap has addressed most of these issues and revolutionized the quality of reconstruction with which reconstructive surgeons are able to provide a socially active and near normal life to cancer survivors. Free flaps come under category of microvascular surgery where we have to work over very small vessels up to 3-5 mm in diameter under magnifying loup or operating microscope. To address the issue of pedicle length limitation, reconstructive surgeons went one step ahead; detached the vascular pedicle from donor site and anastomosed it with suitable vessels near the defect site under microscope and that is called free flap. Drawback of free flap is availability of expertise & long operating time. But we have the expertise and minimized the operating time with two team approach. While oncosurgeon is excising the tumor, reconstructive surgeons raise the flap if donor site is distant one. Now a days free flap is workhorse flap especially for head & neck reconstruction because reconstruction with local flap from face is difficult due to limited tissue to sacrifice and it also disfigures the face.

Here we are sharing our experience of reconstruction with free flaps in last two and half years in various specialties of surgical oncology at Rajiv Gandhi Cancer Institute and Research Centre, New Delhi. We did total 725 free flaps in this duration that makes this institute a leading center of microvascular surgery in North India. Apart from this institute we are also getting patients from other institutes for secondary reconstruction.

Although free flap reconstruction is gold standard in head and neck cancer no other surgical branch is untouched, eg. bone & soft tissue tumors, breast surgery, uro & gynae oncology, paediatric oncosurgery, neurosurgery and gastro intestinal surgery as far as free flap reconstruction is concerned. We are doing 11 types of free flaps. Most frequently used flaps are ALT, RAFF and free fibula. The most dreaded complication of the free flap procedure is flap failure. When we started our journey in RGCIRC our failure rate was approximately 8% but gradually over the period of 1 year it came down to 1.89%. Now we are providing the world class reconstructive surgery to our patients with good cosmetic and functional results.

Following table depicts the types of flaps used for various reconstructions:

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S. No.	Type of Flap	Total No. of flaps
1	ALT	386
2	RAFF	167
3	Free Fibula	147
4	DIEP	5
5	Gracilis Muscle Flap	6
6	Rectus Femoris Muscle Flap	5
7	VastusLateralis Muscle Flap	4

8	AMT	2
9	MSAP	1
10	LD	1
11	Submental flap	1

ALT-Antero lateral thigh flap, RAFF-Radial artery forearm flap, DIEP-Deep inferior epigastric artery perforator based flap, AMT-Antero medial thigh flap, MSAP- Medial sural artery perforator based flap, LD-Latissimus dorsi muscle flap.



ALT Flap

tissue reconstructions because ample of tissue can be taken from antero-lateral aspect of thigh, most of the time we are able to close the donor site primarily. The biggest advantage of this flap is the hidden scar. Apart

ALT is most commonly used flap for soft

from this if we have to fill a cavity, muscle can be included with the flap. Most common indications of this flap are defects of buccal mucosa, maxilla, tongue, parotid, orbit, temporal fossa, neck, abdominal wall, lower extremities and in upper extremities. Few times

it has been used as "flow through flap" to achieve continuity of a segmental loss of a vessel.



Mandibular Reconstruction Right Side

RAFF is very reliable flap based on radial artery. The dissection is easy and faster. Relatively thin skin paddle, that's why most commonly used for reconstruction of lip, partial defects of tongue, floor of mouth, pharyngeal reconstruction after total laryngectomy, superficial defects of skin, buccal mucosa and palate. One total nasal reconstruction and one scalp defect has been covered with RAFF. Trans-oral robotic surgery

(TORS) defect repair is another indication for RAFF. Disadvantages of RAFF are loss of a dominant artery, need of skin grafting to cover the donor site defect leading to conspicuous scar over the forearm.



Radial Arteryforearm Flap

Free fibula is another commonly used flap in cancer surgery. Most common indication is reconstruction of mandible and second one is salvage of extremities. This flap is based on peroneal artery which runs in close proximity to the periosteum of fibula and flexor hallucis longus muscle (FHL). FHL is taken with the flap to cover the fixation plates to avoid post radiation exposure and to make dissection easier. A large

amount of skin can be taken along with bone and muscle based on peroneal artery perforators to replace the buccal mucosa.



DIEP is being used for breast

Gracilis, Vastus lateralis, rectus femoris muscle or myocutaneous flap has been used for tongue reconstruction with good cosmetic and functional results. AMT has been used in place of ALT where no lateral perforators have been found. Submental flap has been used to prevent

lymphedema of lower limb in case of inguinal lymphadenectomy.

In future, our goal is to do the lymphedema prevention surgery in cases of axillary and inguinal lymph node dissection patients.

Dr. Rajan Arora, Dr. Kripa Shanker Mishra, Dr. Vinay Verma and Dr. Hemant Bhoye

Team - Cosmetic, Plastic and Reconstructive Surgical Oncology

CME - IMA SHAHAJANPUR









RGCIRC organized a CME in association with IMA Shahajanpur on Saturday, 23rd December 2017 at IMA Bhawan, Shahajanpur. Dr. P. S. Choudhury, Director – Nuclear Medicine Oncology delivered a lecture on "Imaging in Oncology", Dr. Sajjan Rajpurohit, Consultant – Medical Oncology spoke on "Are We Improving Survival with Medical Treatment in Cancer?", Dr. Amitabh Singh, Consultant – Surgical Oncology spoke on "Robotics in Uro Oncology" and Dr. Akanksha Saxena from Surgical Oncology spoke on "Oncology Scenario in UP" in the said CME.

ANNUAL CONFERENCE OF DMA - ACADEMIA 2017



RGCIRC participated in the Diamond Jubilee State Medical Conference "Academia 2017" held on Sunday, 24th December 2017 at Hotel Lalit, New Delhi being organized by Delhi Medical Association (DMA). Dr. Sudhir K. Rawal, Medical Director and Chief of Uro – Gynae Surgical Oncology delivered a lecture and chaired a session in the said conference.

ANNUAL CONVENTION OF IMA – SOUTH DELHI



RGCIRC participated in 38th Annual Convention of IMA South Delhi on Sunday, 7th January 2018 at Hotel Eros, Nehru Place, New Delhi. Dr. Gauri Kapoor, Medical Director – RGCIRC, Niti Bagh & Director – Pediatric Hematology Oncology delivered a lecture in the said conference.

APPROACH TO LIVER CANCERS: PRIMARY AND SECONDARIES

Hepatocellular carcinoma (HCC) is the most common primary liver malignancy. In the United States, HCC is the ninth leading cause of cancer deaths. Despite advances in new technologies in both diagnosis and treatment, incidence and mortality continue to rise in India as well. Cirrhosis related to hepatitis B and C remains the most important risk factor for the development of HCC. Alcohol consumption remains an important additional risk factor in India. Diagnosis is confirmed without pathologic confirmation, with help of radiological findings and AFP levels. Multiple treatment modalities can be offered to the patient; however, only liver transplantation (LT) or surgical resection are the most promising. LT is available for patients who meet the Milan or University of San Francisco criteria. Additional treatment modalities include transarterial chemoembolization, radiofrequency ablation, microwave ablation, percutaneous ethanol injection, cryoablation, radiation therapy, molecularly targeted therapies and systemic chemotherapy. Selection of a treatment modality is based on tumor size, location, extrahepatic spread, and underlying liver function. HCC is an aggressive cancer that commonly presents in advanced stages.

Liver secondaries remain the most common way in which liver is involved in cancer patients. Almost all solid malignancies can metastasise to the liver. The primary sites mostly include colon, breast, upper GI, thyroid and NET. In patients with colorectal cancer (CRC) that metastasizes to the liver, there are several key goals for improving outcomes including early detection, effective prognostic indicators of treatment response, active timely intervention with either surgery or RT and accurate identification of patients at high risk for recurrence. New therapeutic regimens developed over the past decade have increased survival, there is substantial room for improvement in selecting targeted treatment regimens for the patients who will derive the most benefit.

Surgical resection, RT or local ablative measures are the major curative treatment options available to patients with colorectal liver metastases. Surgery, chemotherapy and RT form the backbone of the treatment in patients with colorectal liver metastases. With more effective chemotherapy regimens being available, the optimal timing and sequencing of treatments are important. A multidisciplinary approach with the involvement of medical oncologists and surgical oncologists from the beginning is crucial. Identification of the clinical and molecular prognostic factors like MSI may help personalize the treatment approaches for these patients.

The incidence of neuroendocrine tumors (NET) has increased over the past two decades. Liver metastases which occur in up to 75% of NET patients significantly worsen their prognosis. New imaging techniques with increasing sensitivity enable tumor detection at an early stage. Hence it is prudent to understand the modalities which can target the liver metastasis and improve outcome in NET. The treatment encompasses a panel of surgical and non-surgical modalities. As we continue to advance clinically and technologically in managing hepatic metastasis, our goal should be continued refinement of predictive and prognostic studies to decrease recurrence after curative resection and minimize treatment toxicity to patients through a tailored multidisciplinary approach to cancer care.

Dr. Vineet Talwar

Co - Director - Medical Oncology

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