



Rajiv Gandhi Cancer Institute and Research Centre

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News Letter

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EDITORIAL

MEDICAL ROAD MAP - INDIA

Healthcare industry in India has witnessed tremendous growth over last one decade. There are several renowned hospitals in India that are able to attract patients from neighboring countries. However, most of the clinical excellence is concentrated in metropolitan cities and is very expensive. It makes the treatment inaccessible and unaffordable for majority of our population. In India, majority of Cancer patients get diagnosed at an advanced stage reducing the chances of cure and increasing expenditure of the treatment exponentially. Patients from remote locations spend fortunes in travelling and stay. Starting from the point of diagnosis, we can still significantly improve chances of success and reduce out of pocket expenditure by several policy initiatives, building robust healthcare infrastructure and effective use of technology. We need to re-design and revamp Indian Healthcare System to deal with Cancer effectively in 2015 and beyond.

1) In order to develop a holistic and sustainable healthcare system our immediate priority should be to ensure that the Govt. prioritizes healthcare agenda and commits to spending more on public health. Govt. focus should shift from palliation to prevention. We should improve general healthcare facilities at all levels. At distt. Level, preventive oncology with focus on health education and screening will bear the fruits in long run. Comprehensive cancer treatment could be restricted to Tertiary care centres. Basic research and clinical research should become integral part of tertiary care at the level of Regional Cancer Centres.

2) Affordable medical technology- while the focus has been on better outcome and quality of life, it is time that focus also includes affordability. The customers (patients) are concerned about price, but not at the cost of treatment outcome, quality of care, efficacy and safety. The need of the hour is to bring the cost of dealing with Cancer down without compromising any of the above. Generic medical shops are being opened in Andhra Pradesh, in 2015. Genuine, inexpensive medicines could be made available through such outlets all over India. Medical equipment manufacturers should also focus on manufacturing systems for a particular geography maintaining global standards and

pricing it accordingly. At the national level, in 2009, the Health Minister's Cancer Patients Fund (HMCPF) was created within the Rashtriya Arogya Nidhi scheme (RAN). It established a revolving fund in the regional cancer centres (RCC) to speed up financial assistance as treatment subsidies for poor patients. A sum of upto Rs. one lakh was proposed as assistance to cancer patients in the BPL category.

3) Healthcare delivery being a state matter, the government needs to create a conducive PPP environment for attracting private participation in way of initiatives such as support in infrastructure set up like land acquisition or providing space, budgetary provisions for capital and operating expenses. The private partner/NGO's could infuse substantial funds into the venture. There could be a well-defined profit-sharing arrangement between the government and the private player. Additionally, the Govt. should focus on being a payer, not a provider and demand and audit quality outcomes.

4) High internet penetration can drive the adoption of telemedicine in India, improving resource efficiency and rapidly expanding access to health services. To these ends, India can replicate global best practices in telemedicine.

5) Human resource – we always talk of lack of manpower and doctors unwilling to work in rural areas. We need to strengthen infrastructure in rural area. We need to prevent brain drain. It is more important to “retain talent than to make more in India”.

Healthcare has become one of India's largest sectors – both in terms of revenue and employment. Now is an opportune time to define the health-system in India in order to power growth and development of the nation. Menace of cancer can be effectively dealt by spreading awareness, creating insurance coverage, connecting rural healthcare facilities with advanced cancer centers located in metropolitan cities using technologies like telemedicine and health information exchange (HIE).

Dr. Dewan AK
Medical Director

CONCEPT OF 'TOTAL PAIN'

Pain is a ubiquitous accompaniment of cancer at any stage. Almost half of all cancer patients suffer severe pain at any stage of the disease. In a patient with progressive disease and ultimately dying of cancer the experience of pain will never be purely physical. In fact 'pain' is whatever the patient says it is for him or her. Important issues adversely flavoring the overall suffering include

- A feeling of being abandoned;
- Perceptible loss of dignity because of their helplessness and how they are more and more dependent upon others for simple daily activities,
- Poor self-opinion of how they look, and how they smell;
- Miserable feeling out of being a burden to their families—not only a physical strain, but also a financial hardship; and
- Terror and fear of dying in pain -alone.

All these issues play heavy on the already distraught cancer patient and increase their suffering. A good pain management strategy thus must address such issues in addition to treating the physical aspect of the pain. As a corollary-any shortfall on the part of the treating team in understanding these circumstances of each patient's unique situation will lead to inadequate pain relief and negligent treatment.

Thus 'Total P.A.I.N.' is a term coined by Dr Cicely Saunders, founder of modern hospice care- and it means pain associated with the 'dying process'- it has four components denoted by P/A/I/N.

Physical noxious stimuli,- the result of actual tumor invasion or tissue damage.

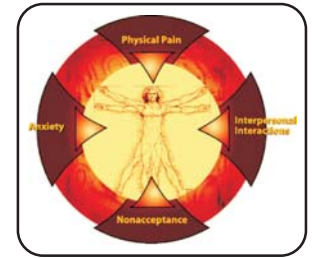
Affect or emotional discomfort, - dysfunctional psychology/ distress.

Interpersonal conflicts- irritation, financial hardship, family disputes.

Nonacceptance of one's own dying- denial of the fact of progressive terminal nature of the disease.

These four components may individually or in combination affect patients' perception of their total pain. One important source of anxiety in patients arises from the rapid tapering of steroids, frequent use of bronchodilators, metoclopramide, hypoglycemia, hypocalcemia, occult bleeding and sepsis and inadequate analgesia. In conclusion, management of total pain requires not only opiates for the physical control of noxious stimuli but also counseling- both spiritual and behavioral and effective palliative therapy such as for nausea, pruritus, constipation and sedation.

Good and effective pain and palliation at 'end of life' need not be daunting for patients and physicians. Knowledge of total pain concepts incorporated into end-of-life pain management offers much to patients and their physicians.



(Figure 1)

Dr. (Capt.) Malvinder Singh Sahi

Senior Consultant, Critical Care & Head, Pain Management

REPORT ON PEDICON 2015 WORKSHOP ON VENOUS ACCESS: CHALLENGES AND CHOICES



The workshop on "Venous Access: Challenges and Choices", was held on 21st January 2015 at Hotel Crowne Plaza, Rohini under the convensorship of Dr.Gauri Kapoor, Director of Pediatric Hematology Oncology division at Rajiv Gandhi Cancer Institute and Research Centre (RGCIRC), Rohini. The objectives of this workshop were to A) understand the critical indications for central venous access. B) be familiar with the basic anatomical landmarks in various procedures and to identify the different central veins used for insertion, C) be able to demonstrate the basic approach and technique of insertion, D) care and maintenance of the central line, E) recognize and manage the possible complications. The delegates were familiarized with Peripherally Inserted Central Catheter(PICC line), Hickman/ Broviac catheters, subcutaneously implanted ports and central venous access in neonates (Neonatal PICC, umbilical artery, umbilical vein and radial artery catheterization).It was attended by doctors from all over Delhi and other states of India which included paediatricians, pediatric surgeons, pediatric oncologists and line care nurses.

The inaugural ceremony began with lamp lighting by the dignitaries and workshop faculty. Shri D S Negi (CEO) and Dr. A.K. Dewan (Medical Director) of RGCIRC graced the occasion with their presence,The subject was introduced by Dr.Gauri Kapoor. This was followed by interactive sessions covering the various workshop objectives by Dr. Sandeep Jain (Consultant, Department of Pediatric Hematology & Oncology, RGCIRC), Dr. K K Gupta (Senior Consultant and Pediatrician, Saroj Hospital & RGCIRC), Dr. Shalini Mishra (Consultant Pediatric Surgical Oncology, RGCIRC) and Dr. Kumar Ankur (Consultant Neonatologist, B L Kapur Superspeciality Hospital). Thereafter the delegates were rotated through 3 different workstations where demonstrations of pediatric PICC Line, Hickman/ Broviac catheter, portacaths and neonatal lines was done on appropriate mannequins. The vibrant atmosphere and enthusiastic faculty provided a platform for a healthy academic discussion on all aspects of central venous access devices.

Emphasis was laid on care of catheters by trained nurses, recognition and prompt treatment of complications of central lines. The quiz at the end helped to recapitulate the learning objectives of the workshop. Several prizes were distributed to winners of the quiz as well as to best interjectors from the audience. In the afternoon, all interested delegates (around 20) visited Rajiv Gandhi Cancer Institute and Research Center for live demonstration of pediatric PICC line in 3 children in the Minor OT.

Overall it was a grand success with enthusiastic participation from both delegates and faculty under the vivacious guidance of Dr. Gauri Kapoor.

MINIMALLY INVASIVE SURGERY IN CHILDREN WITH CANCER

With improvements in miniaturized endoscopes and surgical instruments, minimally invasive surgery (MIS) for treatment of children and infants has become feasible in recent times. Paralleling the advances in adult MIS, pediatric procedures have now been used for virtually all surgical conditions. From thoracoscopic lobectomies to neonatal esophageal repairs, complex biliary reconstructions and resection of solid tumors, it is clear that there are few technical limitations in pediatric MIS today. The safety and efficacy of minimally invasive oncologic procedures in children has now been well established and apprehensions about port site recurrence have been falsified.

The initial lag in use of MIS for pediatric solid tumors may have been due to concerns about loss of tactile sensation, lack of familiarity with advanced laparoscopic techniques and lack of appropriately sized instruments for smaller children and infants. However it has been shown that MIS not only reduces postoperative pain but also has lower morbidities and shorter hospital stays while delivering similar outcomes. For example VATS assisted lung metastasectomy can be performed more quickly than open surgery, may not need intercostal drainage and patient can often be discharged on the 2nd

postoperative day. Moreover the morbidity associated with bilateral metastasectomy can be drastically decreased by the use of MIS.

Indications for MIS in Pediatric Oncology

The commonest use of MIS in Pediatric Surgical Oncology has been for diagnostic purposes when imaging guided biopsy has either failed to yield adequate tissues or is not feasible due to proximity of vital structures to the mass. Biopsy through laparoscopic, thoracoscopic or mediastinoscopic approach is preferred over open biopsy since it allows for speedy recovery of the child owing to smaller incisions. Often the visualization of affected organs is better especially in pelvic pathology, sub-diaphragmatic masses and apical lung lesions. These are areas where access during open surgery is difficult and needs larger incisions.

Secondly MIS can be used in assessment of the stage and resectability of the tumor. Tumor vessels can be ligated laparoscopically before tumor resection.e.g. in large sacrococcygeal teratomas. MIS can also be used for second look surgeries and for evaluation of recurrent or metastatic disease.

Resection of tumors with the help of MIS techniques are being performed with increasing frequency all over India in the recent years. We at Rajiv Gandhi Cancer Institute, regularly perform VATS assisted thoracic surgeries as well as laparoscopic diagnostic biopsies, second look surgeries and staging procedures. In addition, ours is one of the few institutes in the country where robotic assisted pediatric oncosurgeries are being done for several years. These include robotic assisted nephrectomy, adrenalectomy and oophorectomy, etc. Use of robot provides a remarkable benefit with three dimensional vision and improved surgical finesse.

Finally, MIS can be used for managing infectious and other complications of therapy of childhood cancers. New lung lesions in immunocompromised children on therapy can undergo VATS assisted biopsy to distinguish fungal lesions from tumor deposits. Similarly laparoscopic oophoropexy/ testicular transposition protects the gonads from pelvic irradiation.

Advantages of MIS in Pediatric Surgical Oncology

As already mentioned, MIS provides us with easy access to certain areas like pelvis, suprarenal glands, apex of lung, mediastinum, etc. where the surgery is easier than in open surgery. The need for postoperative pain management especially narcotics is remarkably reduced. Due to smaller incisions, the morbidity of surgery is less and there is better cosmesis. Shorter duration of hospital stay allows the child to return back to his normal activities earlier.

Advantages of Robotic assisted Surgery

The da Vinci Si Surgical system provides advanced three dimensional high definition visualization with up to 10x magnification and an immersive view of the operative field. The EndoWrist instruments grant dexterity and range of motion far greater than the human hand. The Intuitive Motion technology, replicates the experience of open surgery by preserving natural eye-hand-instrument alignment and intuitive instrument control.

Limitations of MIS in Pediatric Surgical Oncology

The main limitation of pediatric MIS is the smaller workspace in infants and young children. Achieving one lung ventilation in young children for VATS is also difficult but not impossible. Large tumors may need morcellation of tumor or extension of paraumbilical incision or separate Pfannensteil incision in order to remove it from the abdominal / thoracic cavity. Morcellation is best avoided as histopathological interpretation becomes challenging for the pathologist and tumor margins cannot be commented upon. Availability of miniaturized equipment and availability of trained expertise is of utmost importance.

While treating children with cancer it is imperative to ensure that the enthusiasm of MIS and its advantages does not compromise the established principles of oncology.

Table 1. Advantages of Minimally Invasive Surgery over Open Surgery

PARAMETER	MINIMALLY INVASIVE SURGERY
View of operative field	Magnified but 2-D, however 3-D monitors are now available. Robotic surgery provides upto 10 times magnification with 3-D high definition immersive view replicating the view of open surgery
Access to deep areas like pelvis, subdiaphragmatic areas, apex of lung	Easier without increasing incisions as these areas are difficult to reach by open surgery. Robotic surgery provides greater dexterity and range of motion of Endowrist instruments which are better than human hand.
Operative time	Initially longer operating times but comparable to open surgery after learning curve has been achieved. Robotic surgery is easier than laparoscopy and takes even less time.
Need for blood transfusion	Less than open surgery
Postoperative pain and need for analgesics	Remarkably less than open surgery
Early ambulation	Possible within 24 hours of surgery due to smaller muscle sparing incisions
Duration of Hospital stay	Less by 2-3 days depending on type of surgery
Cosmetic appearance	Improved due to smaller/ hidden incisions
Surgical morbidity	Decreased occurrence of wound infection, respiratory complications, paralytic ileus and absent or minimal postoperative adhesions
Overall outcome	Comparable to open surgery, no RCT available

Figures and legends:



Fig 1. CT scan of left suprarenal tumor in an 11 year old boy successfully excised by robotic assisted technique



Fig 2. Robotic console of da Vinci Si surgical system



Fig 3. The robotic arms after docking in an 11 year old child

Dr. Shalini Mishra
Consultant – Pediatric Surgical Oncology

WORLD CANCER DAY 2015 “NOT BEYOND US”



Rajiv Gandhi Cancer Institute & Research Centre observed “World Cancer Day” on February 4th 2015 to raise awareness about cancer and to encourage its prevention, early detection and treatment.

This year the theme of World Cancer Day is “Not Beyond Us” to emphasize that solutions to control cancer exist and are reachable. Need is to implement what is already known in the areas of prevention, early detection, treatment and care.

Here in India, cancer carries a stigma that makes it harder for people to get accurate information about the disease. Department of Preventive Oncology and Counseling department presented a Nukkad Natak “Sankalp” in the garden area depicting the myths surrounding cancer. It was emphasized through this, that by avoiding tobacco, taking healthy diet, increased physical activity and maintaining weight, about one-third cancer cases can be prevented. Another one-third if detected early can be cured.

Our CEO Shri. D.S. Negi urged people to take pledge to control cancer. Many among the audience came forward and took the pledge to Quit Tobacco/ To avoid Obesity/ To become physically active etc. Some of the audience went beyond individual level and took the pledge to make their community tobacco free.

On 4th February Preventive Oncology Department conducted free oral cancer screening and clinical breast examination in the OPD.

World Cancer Day is an opportunity to raise awareness and advocate for urgent action by one and all to prevent, detect early and treat cancer successfully.

CANCER SCREENING CAMP AT SKH METALS, MANESAR, HARYANA

In its continuous effort to increase Cancer Awareness, RGCIRC organized Cancer Screening Camps and small myth busting exercise for employees of SKH Metals, Manesar, Haryana on 15th & 30th January 2015. Dr. J. G. Sharma, HOD – Preventive Oncology Department, RGCIRC delivered a lecture on Cancer Awareness & Prevention and around 120 employees were screened in the camps.

CANCER SCREENING CAMP AT RDIAS, DELHI



RGCIRC organized a Cancer Awareness Talk and Cancer Screening Camp for Students & Faculty of Rukmini Devi Institute of Advance Studies (RDIAS), Rohini, Delhi.

Dr. Vineet Talwar, Sr. Consultant – Medical Oncology, RGCIRC delivered a lecture on Cancer Awareness. More than 200 students & Faculty members attended the talk. The awareness talk was followed by Cancer Screening Camp by Dr. J. G. Sharma, HOD – Preventive Oncology Department, RGCIRC and Dr. Indu Aggarwal SMO – Preventive Oncology Department, RGCIRC.

Mr. D. S. Negi (C.E.O.)
 Dr. A. K. Chaturvedi
 Dr. D. C. Doval
 Dr. Gauri Kapoor
 Dr. Anurag Mehta
 Dr. S. A. Rao
 Dr. P. S. Choudhury
 Dr. S. K. Rawal
 Dr. Dinesh Bhurani
 Dr. Sunil Kr. Gupta
 Dr. B. K. Naithani
 Dr. (Col.) A. K. Bhargava
 Dr. R. S. Jaggi
 Dr. Vineet Talwar
 Dr. Sheh Rawat
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