



# NEWS LETTER

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What's Inside: 1. EDITORIAL | 2. CRYOABLATION | 3. RAISING AWARENESS: UNDERSTANDING CHALLENGES IN SARCOMA MANAGEMENT | 4. RGCIRC CREATES HISTORY WITH INDIA'S FIRST-EVER TELESURGERY IN CANCER CARE

## EDITORIAL ETHICAL ISSUES IN PALLIATIVE CARE

Ethics refers to the rules or standards governing the conduct of individuals or members of a profession. As members of medical profession our conduct is governed by medical ethics.

The four cardinal principles of medical ethics provide a frame work for decision making in difficult situations. They are-

1. Respect for patient's autonomy
2. Beneficence or 'do good'
3. Non maleficence or 'do no harm'
4. Justice or fair use of available resources.

**Autonomy** is an expression of informed choices and preferences or consent to whatever we do or is done to us by others. It acknowledges the patient's right to know the diagnosis, to know the details of the treatment offered to him/her, and the right to refuse treatment.

**Beneficence** means that whatever one does to the patient should be good to the patient.

**Non maleficence** means one should not do any harm to the patient while giving care or treatment to the patient.

The resources are limited and the demands are high. **Justice** is the principle of fair use of the available resources. It concerns with balancing needs of individuals with those of society.

Mr. X is a 50 year old man with advanced cancer of stomach. He is a manual labourer and works hard to support his family with wife and four children. Now his eldest son is grown up and earning. When Mr.X became ill, he refuses food and fluids. His wife and children are upset at the thought that when they reached a point when Mr.X can sit back and enjoy the fruits of his labor, he is unable to eat. They insist the doctor to put in an NG tube or give him IV fluids. How do the ethical principles apply in the above clinical scenario?.

Respecting the autonomy means not to force feed him. Before taking such a decision, we have to be sure that his opinion came as an informed choice and not under any undue external pressure. To ascertain this we have to communicate with the patient effectively. Psychological assessment must be done to rule out clinical depression, and anything correctable should be corrected. If we know that Mr.X's decision not to take food or fluids came as an

informed choice, we should respect it. According to the second principle of beneficence, artificial hydration or feeding should be given only if it does any good to the patient. Terminal hydration and nutrition do not improve the quality of life or longevity of terminal patients. The third principle is non-maleficence. We are justified in giving artificial hydration and nutrition only if it does not produce any harm to the patient. A problem with artificial hydration in a terminally ill patient is circulatory overload and the resultant pulmonary edema. The principle of justice has not much relevance in this situation unless we plan for total parenteral nutrition which has a bearing on the resource potential.

Now the question is to address the relative's concern. Again skilled communication is needed. They should be informed in a sensitive manner the futility of hydration and nutrition in such patients and the possible adverse effects of such treatment. In this cultural milieu it is important that we respect the wishes of the immediate care givers also. This can be done by making the care givers participate in the decision making.

The primary goal of medical treatment is to benefit the patient. If a patient has refused the treatment or if the patient lacks financial capacity and the treatment would fail or cease to provide a net benefit to the patient, the treatment should, ethically and legally be withheld or withdrawn. Good quality care and palliation of symptoms should however continue. Medical interventions may have some benefit and some risk or burden to the patient. It means withhold or withdraw treatment when the risk of burden outweighs the benefit. The doctor has to assess the situation individually and decide upon instituting a particular treatment when it seems to be beneficial and he/she should have the courage to stop the treatment when the burden or risk outweighs the perceived benefit.

The aim of medical care should be to provide best possible quality of life. Towards the end of life the biological prospects are slim and the ethical imperative is to focus on quality of life rather than the duration of life. It is important to ensure participation of the patient in the discussion regarding reorienting the goals of care. How far the patients should be involved is a difficult question. Doctor should explain to the patient the therapeutic possibilities and the odds for success, explore the patient's goals, values and expectations and assist in arriving at a decision. In real life

( Continued on 4<sup>th</sup> Page )

## CRYOABLATION “FREEZE YOUR CANCER NOT YOUR LIFE”

Cryoablation is another thermal ablation technique that has been in use since the mid-19th century to treat various tumors of the breast, cervix, and skin via induction of cold temperatures. The modern era of Interventional Oncology uses cryoprobes to achieve optimally low temperatures for tumor cell death through the Joule-Thompson effect. This effect is a property of adiabatic (ie, no heat transfer into or out of a system) real gases that move from a high- to a low-pressure system, causing gas expansion and consequent decrease in gas temperature. The cryoprobe functions as a high-pressure, closed-loop system primarily covered with a thermal insulation shell that establishes adiabatic conditions.

The distal tip of the cryoprobe is free of thermal insulation, allowing for the transfer of cool or hot temperatures to its metallic walls. By placing one or multiple probes in a particular malignant tumor using image guidance, an ice ball forms around the distal end of the cryoprobe, which kills the tumor via a freezing-thawing mechanism. Argon gas is used in the freezing phase because it is a high-pressure gas in room air, while high-pressure helium gas is used in the thawing phase due to its unique property of temperature increase with gas expansion. Rapid cooling causes intracellular ice crystal formation, and thawing causes melting of extracellular ice crystals, creating a hypotonic environment and cellular swelling. The damaged mitochondria induce apoptosis (seen in the periphery of the ablation zone), while cold-induced tissue ischemia results in coagulative necrosis within the ablation zone after several weeks.

Cryoablation boasts certain advantages over other thermal ablation modalities. One of the main differences is that the ablation zone can be visualized in real-time using ultrasound, CT, and/or MRI. In addition, cryoablation is less painful due to the anesthetic effect of cooling tissues. Procedure can be performed on outpatient basis under local anesthesia or light sedation. Patients can be discharged on the same day of procedure. Also, there is a strong immune response seen that consists of antibody production against tumor-specific antigens that reside in tissues postablation. However,

disadvantages include systemic inflammatory response syndrome (cryoshock), bleeding complications due to lack of cautery effects, and the large expense associated with purchase and storage of argon and helium gas.

With regular improvements made to cryoablation equipment and supplemental immunotherapy, the future horizon of treatment indications looks promising. Beyond the treatment of renal cell carcinoma (RCC) and hepatocellular carcinoma (HCC), cryoablation has also been effective in treating fibroadenomas for more than a decade as well as unifocal ductal cancer, with a 92% success rate. Stage I prostate cancer has been effectively treated, especially with recurrence after radiation therapy. Stage IA non-small-cell lung cancer may also be treated and has been associated with lower pain levels. Another important role is treating bone metastases. Most recently, the multicenter MOTION study published findings on the role of cryoablation for palliative pain treatment in patients with painful bone metastases. As ablation technology continues to make advancements, cryoablation will continue to broaden its role in Interventional Oncology.

### References:

1. Mahnken AH, König AM, Figiel JH. Current technique and application of percutaneous cryotherapy. *Rofo*. 2018;190:836-846. doi: 10.1055/a-0598-5134
2. Song, K. D. Percutaneous cryoablation for hepatocellular carcinoma. *Clin Mol Hepatol*. 2016;22:509-515. doi: 10.3350/cmh.2016.0079
3. Erinjeri JP, Clark TW. Cryoablation: mechanism of action and devices. *J Vasc Interv Radiol*. 2010;21(8 Suppl):S187-191. doi: 10.1016/j.jvir.2009.12.403

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## RAISING AWARENESS: UNDERSTANDING CHALLENGES IN SARCOMA MANAGEMENT

As an oncologist, it is essential to continuously deepen our understanding of rare malignancies to provide the best care for our patients. Among these, sarcomas stand as a challenging frontier, demanding heightened awareness and vigilance from physicians across all specialties. With July being Sarcoma Awareness Month, let us delve into this complex domain, exploring some key facets that warrant attention from the medical community.

Sarcomas comprise a mixed group of tumours arising from mesenchymal tissues, constituting less than 1% of all adult cancers. Despite their rarity, the impact of sarcomas on patients' lives is profound, often characterized by aggressive behaviour and limited treatment options. They may be classified as truncal and extremity sarcomas. Truncal sarcomas usually present as retroperitoneal sarcomas, which are often diagnosed when the lesions grow to huge sizes, and involve multiple abdominal viscera, making treatment complex. Extremity sarcoma may be further classified into skeletal sarcomas (arising from bone) and soft tissue

sarcoma. Possibility of limb salvage is often the main goal of treatment in extremity sarcomas. Histologically diverse, sarcomas present a diagnostic conundrum, necessitating expertise in clinical evaluation, pathology and oncological care for accurate classification and management.

One of the foremost challenges in sarcoma care lies in early diagnosis. Frequently presenting as painless masses or with nonspecific symptoms, sarcomas are prone to misdiagnosis or delayed recognition. Physicians must maintain a high index of suspicion, particularly when encountering atypical presentations or refractory musculoskeletal complaints. Appropriate imaging with a contrast enhanced MRI or whole-body PET CECT is crucial in their management. Before excision of any lump or swelling, it must be subjected to a pathological confirmation by an FNAC or a biopsy, to diagnose any mesenchymal tumour optimally. At times, the imaging may guide the decision and route for biopsy to avoid any tumor spill and violation or contamination of virgin

compartments. In case of doubt, timely referral to specialized centers equipped with multidisciplinary teams can facilitate expedited diagnosis and tailored treatment planning, optimizing outcomes for patients.

Central to the management of sarcomas is the recognition of distinct subtypes, each with unique biological behaviors and therapeutic considerations. From the indolent nature of well-differentiated liposarcomas to the aggressive metastatic potential of undifferentiated pleomorphic sarcomas, the spectrum of sarcomas mandates nuanced approaches informed by histology, grade, immunohistochemistry and molecular profiling, and at times genetic profiling as well. Collaboration between oncologists, surgeons, radiologists, and pathologists is paramount to individualizing treatment strategies, encompassing surgery, radiation, chemotherapy, and emerging targeted therapies and their appropriate sequencing.

Moreover, the advent of precision surgery and medicine has revolutionized sarcoma therapeutics, offering newfound hope for patients suffering from this disease. Each surgical plan is in fact complex and unique for every patient, whether it is retroperitoneal sarcoma requiring multi visceral resection (removal of multiple abdominal organs at times) and reconstruction, or truncal sarcomas, requiring limb salvage surgery with prosthesis or plastic reconstruction. Advances in the delivery of radiation therapy, intra-operatively and post-operatively have facilitated in reducing loco-regional recurrences, minimising the local side effects and reducing the treatment durations, all at the same time. Molecular profiling and genetic sequencing have unveiled actionable targets, paving the way for targeted agents and immunotherapies tailored to the molecular landscape of

sarcomas, that have a role both before and after the curative therapy. Keeping abreast of advancements in genomic medicine and participating in clinical trials are integral to expanding the therapeutic armamentarium and improving patient outcomes in this rare cancer subset. Multidisciplinary management may at times imply the need for co-operation amongst various oncology disciplines, which is best met at a dedicated oncology centre.

Beyond clinical management, fostering awareness of psychosocial aspects is indispensable in sarcoma care. The rarity and uncertainty surrounding sarcomas can evoke profound emotional distress and existential angst in patients and their families. Physicians must cultivate empathy and open communication, providing holistic support throughout the diagnostic journey and treatment trajectory. Collaborating with psychosocial oncology services can ameliorate distress and enhance coping mechanisms, fostering resilience in the face of adversity.

In conclusion, sarcoma awareness transcends mere recognition of a rare malignancy—it embodies a commitment to excellence in cancer care, grounded in scientific acumen and compassionate engagement. As physicians, our collective efforts in raising awareness, advancing research, and optimizing patient care are indispensable in confronting the challenges posed by sarcomas. Let us unite in our resolve to illuminate the path forward, offering hope and healing to those affected by this formidable adversary.

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## RGCIRC CREATES HISTORY WITH INDIA'S FIRST-EVER TELESURGERY IN CANCER CARE



Pioneering Advanced Technology: RGCIRC Leads the Way in Revolutionary Cancer Treatment

**Rajiv Gandhi Cancer Institute and Research Centre (RGCIRC) has made history by performing India's first-ever telesurgery in cancer care.** This groundbreaking procedure, which represents a monumental leap in medical technology, ensures precision and safety while overcoming geographical barriers.

**Led by Dr. Sudhir Rawal, Medical Director of RGCIRC and Chief of Genital Urinary Oncology, the expert team, including Dr. Amitabh Singh and Dr. Ashish, successfully performed a Radical Cysto-Prostatectomy with Bilateral Lymph Nodes Removal.** The surgery, which traditionally took up to three hours in open surgery, was flawlessly completed in just one hour and forty-five minutes, showcasing the efficiency, reliability and safety of telesurgery. This surgery was conducted from SSI Office-Udyog Vihar, Gurugram using SSI Mantra Robot, an Indian Robot. Dr. Sudhir Srivastava, CEO of SSI, and his team managed all the technical aspects. They successfully provided clear visibility of the operative field and precise movement of the surgical instruments. The experience was akin to performing the surgery in an actual operating theatre. The patient, aged 54, was located at RGCIRC, Rohini Centre, Delhi, and was diagnosed with bladder cancer.



## EDITORIAL (CONTINUED)

situations many patients would like the doctor to take decision for them. It is the moral responsibility of the treating doctor to help patients take decision. Towards the end of life the health condition is very fragile. Drugs used or procedures done at that time, which have a potential for adverse effects may be blamed for the death. Traditionally the 'doctrine of double effect' is cited as justification for instituting such therapy. The doctrine of double effect states- "A single act having two possible foreseeable effects, one good and one harmful, is not always morally prohibited if the harmful effect is not intended".

A clinical scenario can be used to demonstrate the doctrine. Mr. X is having far advanced carcinoma stomach with severe pain and panic reaction. He was given parenteral morphine to relieve the pain and panic. In a few minute he dies. Can morphine be responsible for the death and is the prescribing doctor punishable as respiratory depression is a foreseeable effect of that drug? As per the doctrine so long as the intention of giving morphine was not hastening death, the prescribing doctor is not guilty of the outcome even if that effect was foreseeable.

Many times relations insist on terminal care in sophisticated ICU. They want to show the world that they did everything available on earth to treat their kith and kin. With the advent of modern technology it is now possible to prolong the dying process by artificial ventilation and cardiac support. Most of the time it runs contrary to the wishes of the patients. It does not conform to the notion of 'good death' either. But is it morally justified to stop life prolonging or life sustaining treatment? The decision has to be taken on an individual basis. Ethical principles should be applied against the background of respect for life and the acceptance of the ultimate inevitability of death. Indian law doesn't have specific guidelines for limiting life support in the end of life care. But there are certain constitutional and legal provisions which can be used by the treating physician to limit further suffering.

Ethical principles are useful only as a broad guideline for patient care. Compassion and common sense should be combined with professional knowledge and skill. While applying ethical principles one should employ good communication skills at all levels. Essentially it is working together with the patient and family taking into consideration their religious and cultural background.

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