Hemalata Bulletin

Issue III, February, 2010

Chairman's Message

Four years of quality cancer care and reaching thousand of cancer patients in Orissa, gives us the satisfaction of achieving the purpose for which Hemalata Hospitals and Research Centre was conceived. The last four years has been a journey of many firsts in Oncology care in this part of the country for all stake holders, patients and their family members included.

It is time for us to renew our commitment to eliminating cancer from Orissa and we as a team will do it. We thankfully acknowledge the support that we have received from the Medical fraternity of the state and the confidence that our counterparts in other parts of the country have shown by referring back the patients to us from thousands of miles from Mumbai, Delhi, Hyderabad and Bangalore, to name a few. I am confident, we will continue to improve ourselves and will live up to the expectations.

Dr. Arabinda Kumar Rath
Chairman and Managing Director

4th "**Hemlata Oration**" was delivered by **Dr Arvind K Chaturvedi,**
Medical Director, Rajiv Gandhi Cancer Institute, New Delhi on 19 December 2009

Cancer Detection Camp held at
Kendrapara on 2nd February 2010

Cancer Detection Camp held at
Berhampur on 10th January 2010

Cancer Detection Camp held at
Baripada on 29th November 2009

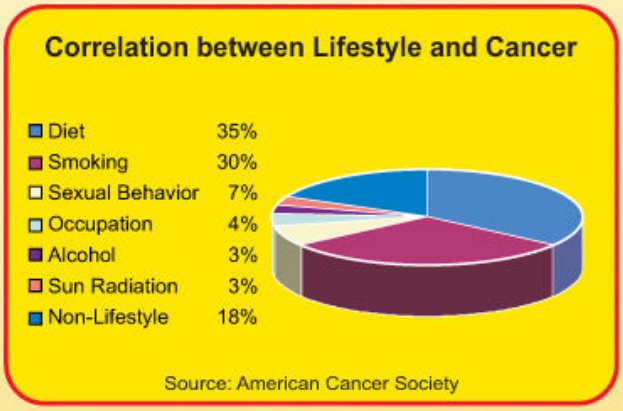
HEMALATA HOSPITALS AND RESEARCH CENTRE

Multi Specialty Hospital For Cancer & Neurosciences

LIFE STYLE AND CANCER

Dr. Arabinda Kumar Rath and Dr. Satya Ranjan Padhi
Hemalata Hospitals and Research Centre, Bhubaneswar

Bhubaneswar hosted an International Symposium on Cancer Research during 18-21, December 2009 coinciding with the euphoria of Cricket at the same hotel venue where the Indian and Srilankan cricketers stayed. But the cricket frenzy people were quite unaware of the high level of scientific deliberations that took place led by the scientists from the World's largest cancer centre, the MD Anderson Cancer Centre, Houston, Texas, USA along with Institute of Life Science, Hemalata Hospitals and Research Centre, Bhubaneswar and few hundred basic science research scientist from several premier Institutes from India and abroad. Today the answer to the question what causes cancer is a big "Don't Know". Cancer is often perceived as a disease that strikes for no apparent reason. While scientists don't yet know all the reasons, many of the causes of cancer have already been identified. Besides intrinsic factors such as heredity, diet and hormones, scientific studies point to key extrinsic factors that contribute to the cancer's development are chemicals (e.g., smoking), radiation and viruses or bacteria. The war against cancer continues to puzzle one and all. About 25 lakh people in India are suffering from cancer today and the number still is growing. A three pronged approach i.e. cancer prevention, cancer therapy as well as cancer palliation has to be undertaken simultaneously to tame this dreaded disease.



Many cancers are life style related and can be prevented. Cancer is a disease of malfunctioning genes. About 10 percent of all cancers occur in people who have inherited genes that make them vulnerable. All tumors begin with one renegade cell. The cell is one of about 30 trillion or so cells in the body. It looks no different than the cells around it. The renegade begins to multiply wildly. One cell becomes two, two becomes four, and soon they multiply beyond counting. Most of us are born with good genes but some genes can become damaged. It is these cells that mutate and become cancerous. During our lifetime our cells will divide 100,000 trillion time, creating 100,000 trillion opportunities for a malfunctioning cell to turn mutant. Most cancers occur when cells damage their genes accidentally. Although our cells have the ability to repair themselves, the protection is not perfect. So mutations and mutant cells accumulate as we grow older. Studies of lifestyles and cancer have given us the tools, today to reduce our risk of cancer. With diet, exercise and non use of tobacco, scientists tell us we can cut our risk of cancer by 70 percent.

Delegates of 3rd International Symposium on translational Cancer Research, 18 - 21 December 2009, Bhubaneswar,

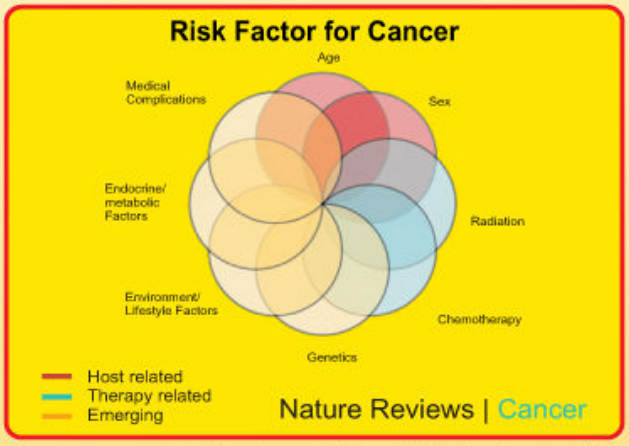
Though several factors related to life style can be attributed to cancer prominent among them are Tobacco, Red meat, Obesity, Inadequate physical activity and Alcohol. One third of all cancers and half of cancers in men are tobacco related. This is a fact that a habit which is totally preventable kills lakhs of people. Tobacco in both forms i.e. smoke and smokeless is equally dangerous but the tobacco related smoke is a social menace as it silently kills innocent people who are victims of second hand or passive smoking. Worst among the sufferers are unborn children inside the womb, young children who have no control on their adult parents and others who get victimized just by living in smoke filled environments.

It is also true that all cancers cannot be prevented. Several risk factors such as genes and family history can't be controlled. However it is know now that healthy diet and few lifestyle changes reduce overall chance of cancer. The golden rule is preventing what we can and screening for what we cannot. Early detection is the way to cure cancer. In most of the developed countries today the life span of a normal person and a cancer patient is almost same as the cancers in these countries has detected early and necessary intervention starting from primary sites to disease metastasis managed meticulously. This not only adds many years of life to the patient but also improves the quality of life and the cancer patient lives a life with dignity and does not become a social burden. Today cancer incidence and mortality can be controlled by modulating the known causes of cancer. The result is that Cancer patients today live much longer and thus Cancer has become a chronic disease. It can be treated multiple times using multiple lines of therapy and most importantly each patient receives a personalized therapy. One such example is pain management in cancer. Even a terminally ill patient requires intensive pain relief. With today's availability of multimodal approach to pain management, every cancer patient has basic human right for adequate pain relief; no matter whether disease is curable or not. Usually the pain physicians are guided by the "WHO ladder Pattern" of pain management for cancer patients, with modifications as

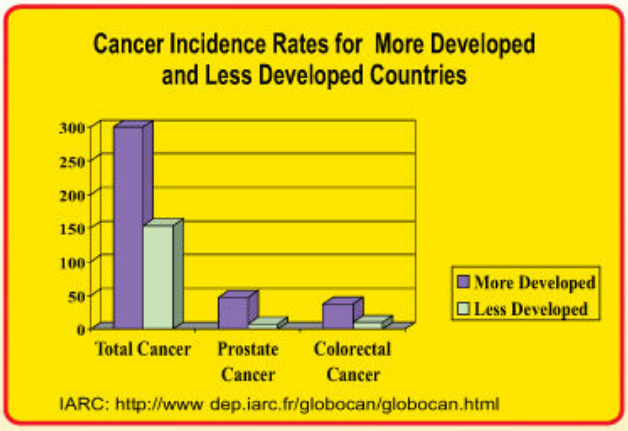
required. This may range from simple NSAIDS, weak opioids (e.g. codeine) to strong opioids (e.g. morphine) & adjuvant drugs. In selected cases patients may require invasive procedures like neurolytic nerve blocks, implantable pumps (e.g. intrathecal pumps) rthizotomy, cordotomy, radio-frequency neuro-ablation etc.

Sometimes patients may require surgical intervention like decompressive procedure. Palliative radiotherapy has got its importance as in case of bone metastasis. As there are psychosocial factors associated with pain, proper counseling & psychotherapy play no small role addressing the same. In summary the holistic approach to pain management lies in identifying the cause of pain, assessing the severity of pain, selection of patients , initializing a suitable therapy, looking for patient's satisfaction & side effects .

Another important phenomenon related to cancer is apoptosis. Apoptosis is a programmed cell death and a highly organized physiological mechanism to destroy injured or abnormal cells. Apart from physiological stimuli there are exogenous factors which can contribute to induce apoptosis. The induction of apoptosis in tumor cells is considered very useful in the management and therapy as well as in the prevention of cancer. A wide variety of natural substances have been recognized to have the ability to induce apoptosis in various tumor cells of human origin. These substances are compounds with different chemical entities and many of

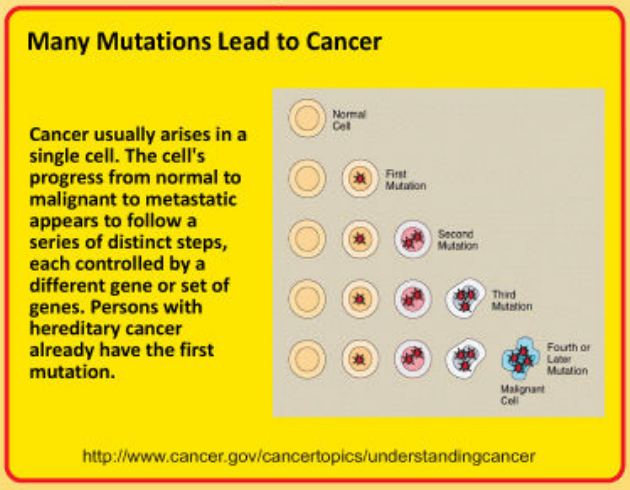


these are present in plants with medicinal value and in various fruits and vegetables commonly consumed by humans. One of the pioneering works from the scientists from MD Anderson Cancer Centre, Texas is conducting laboratory studies on the apparent anticancer activity of curcumin, which is the main ingredient of the curry spice turmeric. Cancer statistics in India is much lower than the developed countries in Europe and America and the logical conclusion for the same comes from our traditional food habits. Natural products provide many of the lead structures that are used as therapeutic agents or anticancer drugs, and these are used as templates for the construction of novel compounds with enhanced biological properties. Obesity or higher body weight is among many health and lifestyle related factors that play a role in cancer risk and survival. The term "energy balance" describes the complex interaction of diet, physical activity and genetics and may play an important role in cancer prevention and control. According to International Agency for Research on Cancer (IARC) lifestyle impacts cancer incidence as it is estimated that cancer incidence in more develop countries is significantly higher than that in the less



developed countries. Chemicals (e.g., from smoking), radiation, viruses, and heredity all contribute to the development of cancer by triggering changes in a cell's genes. Chemicals and radiation act by damaging genes, viruses introduce their own genes into cells, and heredity passes on alterations in genes that make a person more susceptible to cancer. Genes are inherited instructions that reside within a person's chromosomes. Each gene instructs a cell how to build a specific product--in most cases, a particular kind of protein. Genes are altered, or "mutated," in various ways as part of the mechanism by which cancer arises.

The in thing in cancer care is Gene Expression Profiling to guide cancer management and personalized medicine in cancer. Today along with the routine questions like is it cancer, and what is the type, we need to ask how aggressive it is, what are the chances of its recurrence, and whether it is resistant to some drugs. Today's Oncology is based on the fact that each patient's cancer is a distinct entity. We need to look inside the cancer cell for individualized treatment protocols. Tomorrow's cancer treatment is going to be guided by our knowledge of the human genome. We need to get Tumor specific genetic fingerprints and using it we need to predict the risk of recurrence, prognosis and response to therapy. Tomorrow's oncologist needs to know that each patient's cancer is a distinct entity, need to look inside his cancer cell and hence formulate individualized treatment protocols. Sir William Osler said in 1892 “If it were not for the great variability among individuals, medicine might as well be a science and not an art” and this statement continues to be true in medicine even today.



Anyone who has never made a mistake has never tried anything new. : Albert Einstein

4th Annual Day Celebration on 27 December 2009

Continuing Medical Education programme on NEURO - ONCOLOGY on 31 January 2010

Hemalata Hospitals and Research Centre organized a Continuing Medical Education programme on "Neuro-Oncology" in association with "Indian Society of Neuro Oncology" on 31 January 2010. Top neurosurgeons and cancer specialists of the country came together at a programme on Neuro-Oncology, to share knowledge on the latest advances in treatment and management procedures among the doctors of the state. Chaired by Prof. Sanatan Rath and Prof. Upendranath Panda in the presence of Chairman and MD Dr. A K Rath, the programme saw participation of more than 50 Neuro-Oncology specialist of the state. Experts like Dr Rakesh Jalali of TMH, Mumbai, Dr. Sudhir Tyagi of Indraprasta Apollo Hospital, Delhi, Prof. B K Mohanty of AIIMS New Delhi, Dr.Sona A Pungavkar,Nanavati Hospital,Mumbai, Prof. Manasa Panigrahy, KIMS, Hyderabad and Prof Amit Aagrwal of Datta Meghae Institute of Medical Sciences, Wardha were amongst the faculty who delivered lectures on various aspects of Neuro Oncology.

Prof. Sudhansu Sekhar Mishra, HOD, Neurosurgery, SCB Medical College Cuttack, Prof. Sureswar Mohanty of Sum Hospital, Prof. B. S. Das of Kalinga Hospital, Prof. K. C. Sahu, Prof. Benudhar Lenka, Prof. Sarala Das, Dr. Sandeep Mishra of Institute of Life Sciences chaired and moderated the sessions. A panel discussion on Neuro-Oncology was conducted with Dr Manas Panigrahi, Dr Ambika Prasad Mishra, Dr. G. Biswas, Dr Sidharth Patnaik, Dr Amit Kumar Adhya, as panelists.

The Indian Society of Neuro-Oncology (ISNO) and Hemalata Hospitals and Research Centre (HHRC) have joined hands in forming the Orissa chapter of ISNO. The Orissa chapter of ISNO was functional from Sunday, 31 January 2010 and the organization would have a pool of super specialist like neurosurgeons, neuro-oncologist, radiologist, and pathologist as its members. This chapter would be of immense help for the patients in the state who are victims of either primary neurological tumors or tumors which spread to brain and the spinal cord.

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