

Cyberknife®

brings hope for cancer patients

Author: Dr. Tejinder Kataria
Chairperson, Division of Radiation Oncology

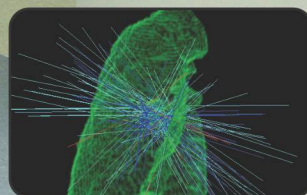
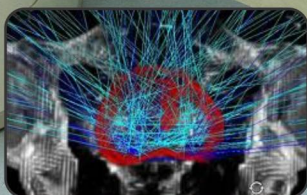
Cancer treatment all over the world, including India has witnessed major changes, specially over the past decade. The trend is to improvise towards radical cures and disease eradication, rather than just best supportive care in difficult cases.

A major advancement in this aspect is the development of the state-of-art radiotherapy technique. Cyberknife world's first robotic radiotherapy delivery equipment is bundled with capabilities, which were just part of science fiction in the past. Cyberknife is a versatile robot mounted radiotherapy unit, with miniaturized radiation delivery head with supra-added precision and pin point accuracy, as close as less than a millimeter. Its smart and continuous imaging helps real time error detection and correction, ensuring targeting of tumor that was not possible in the past. Its intelligent detection of patient's voluntary and involuntary movements during the complete therapy ensures exact delivery to the intended sites. Thus there are no more risks from unavoidable misses as from older rigid techniques in the past. With confidence in the exact localization and delivery of this treatment, its possible now to spare normal tissues outside the disease area all the more and thus, reduce the expected side effects manifold.

With the advent of this technique, patients can now look forward to less than a week treatment time. This is much shorter as compared to prolonged 7-8 weeks of fractionated radiotherapy. There are also reduced concerns regarding added inconvenience of traveling, stay and associated expenditure related to such long treatments. Cyberknife promises to be a totally non invasive procedure ensuring a pain free treatment, with absolutely no need for anesthesia or invasive treatment adjuncts.

The latest version of Cyberknife VSI installation at Medanta-The Medicity, is one of its only kind in North India. Although started for many benign and malignant brain tumors, its use has now extended to spine, thoracic, abdominal and many pelvic organ diseases. Its special benefit is to treat cases which have in the past been heavily treated by the three modalities of cancer treatment, namely surgery, chemotherapy and radiation. It brings a ray of hope specially for cases which were otherwise planned for only best supportive care, as none of the available techniques could attempt to treat such cases without fear of added un-necessary side effects. Also it is a boon for patients of early stage cancers. Cyberknife promises to achieve comparable control rates even in these cases.

Now, with this special tool available, the care givers have the confidence of delivering dosages that are actually ablative and there are no more restrictions in treating such sites, therefore increasing the chances of response to therapy with better control rates.



ACCURATE
CyberKnife