

The Indian EXPRESS

JOURNALISMOFCOURAGE

SINCE1932

SUNDAY,FEBRUARY4,2024,PUNE

₹5.00 • WWW.INDIANEXPRESS.COM

ADVERTORIAL

Latest Developments and Advances in Cancer Surgery



Dr. Mihir Chitale
Senior Consultant

Advanced Minimal Invasive
& Cancer Surgery

Fellowship in Digestive &
Endocrine Surgery (France)

Fellowship In Robotic
Surgery (Cambridge, UK)



drmihirchitale@gmail.com

www.drmihirchitale.com

9930599474

With advances in medical science over the last decade and new research projects going on around the world, we have achieved great success in providing the best treatment for cancer patients. Minimal Invasive Surgery and Robotic Surgery are taking precedence in the current scenario of cancer surgery.

Minimal Invasive Surgery (MIS) in Surgical oncology is performing surgical procedures with small scopes, cameras & instruments which require minimal or very small cuts or incisions as opposed to large cuts/big incisions in traditional open surgery. The recovery of patients post MIS is phenomenal with minimal pain and very less tissue damage, infection and bleeding. The patients that have undergone MIS can get up and walk the next day even after a major surgery and get discharged earlier. Contrary to the myth, clearance achieved or complete removal of cancer tissue with adequate margins in MIS is as good as it is with traditional open surgery. So MIS for cancer has proven to be completely safe for the patients with a plethora of benefits.

Recent advances like 3D / 4K systems and Robotic Systems have helped surgeons improve the surgical outcome for the patients by leaps and bounds. 3D cameras with better depth perception and 4K cameras with excellent clarity in images help an already highly skilled surgeon in doing surgery meticulously.

Using Indo cyanine Green (ICG) dye with specific cameras we can precisely map the lymph nodes and also do Sentinel Lymph Node Mapping. Lymph nodes illuminate on switching the camera to ICG mode.

ICG can be used to check blood perfusion of tissues after surgery and also for clear delineation of anatomy.

We can achieve optimal clearance and reduced morbidity for the patients. ICG can be used in various cancer surgeries in Gynaecological cancers- Ca endometrium & ca cervix; in breast cancer; in inguinal and pelvic lymph node dissections; in colo-rectal cancers; cancers of oral cavity, etc.

Infrared Illumination System



(IRIS) is also one of the newer methods used in difficult & complicated pelvic surgeries to reduce risk of injury to the ureters. The fibre optic infrared red fibre placed in ureter illuminates in IRIS mode.

Robotic Surgery- It is a major advancement in the field of cancer surgery as newer superior machines are being developed and researched upon. Surgeon completely controls the robotic system. It offers greater precision and the robotic instruments due to the manoeuvrability can reach the areas during surgery that have difficult access. Major surgeries can be performed with ease using Robotic



systems. Even hybrid approach using laparoscopy and robotic surgery is preferred in some cases. Surgeries for Prostate cancer, Cancer of oesophagus, pelvic surgeries etc. are performed robotically in large numbers.

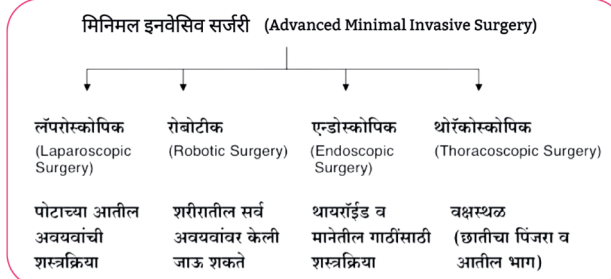
Thoracoscopic surgery- it is the surgery for tumors/lesions in the thoracic cavity (inside chest cavity). Mainly includes tumors of lung, pleural cavity, thymomas, mediastinal tumors and lymph node dissections, cancer of oesophagus, etc. All these can be dealt with without opening the chest with small scopes and small incisions.

Non-cavitary surgeries - It is a recent advancement which was considered non-feasible and almost impossible until recently. With advancement in the skills of minimal invasive and laparoscopic surgeon & broadening of endoscopic horizon, it has become a promising domain thus benefitting the patients.

It includes Endoscopic Thyroid/parathyroid surgeries, endoscopic

Advanced Minimal Invasive Surgery

- Laparoscopic Surgery- For tumors/problems in abdominal cavity
- Robotic Surgery- For tumors/problem areas in abdominal/thoracic cavity.
- Endoscopic Surgery- For Thyroid/parathyroid tumors
- Thoracoscopic Surgery- For tumors in thoracic cavity. Mainly lung/mediastinal tumors



Cancer prevention

Effective actions by governments, organisations and individuals to reduce the risk factors for cancer, such as the consumption of tobacco, alcohol and unhealthy foods, can help prevent over one-third of all cancers.

With an estimated 19.3 million cases and nearly 10 million deaths in 2020, cancer is now the second leading cause of death worldwide. The global burden of cancer is projected to grow with incidence and mortality rates set to rise by 40% by 2040

Up to half of cancer cases are preventable, making cancer prevention measures a cost-effective means to reduce cancer incidence and mortality.

Primary cancer prevention measures includes interventions that block the initiation of cancer by altering exposure to risk factors, such as tobacco smoke, alcohol, occupational carcinogens, radiation, overweight and obesity and other factors that are modifiable by changes in behaviour or policy.

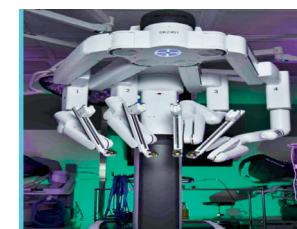
Secondary cancer prevention measures relates to detecting cancer early and stopping it from getting worse. It includes screening tests that can identify and treat cancer early in its development. While effective tests for population screening are in place for only a few cancers (breast, cervix, lung and colorectal cancer), primary and secondary (early detection) strategies can reduce the cancer burden by one third to a half and are therefore cost effective and core components of a national cancer control strategy.

Cancer risk factors and prevention

- A cancer risk factor is anything that increases a person's likelihood of developing cancer. Risk factors can include lifestyle factors such as smoking, alcohol consumption and poor diet, as well as genetic and environmental factors. Identifying and addressing risk factors through policy and programmes and behaviour changes can reduce the risk of developing cancer.
- Addressing the risk factors for cancer offer a cost-effective and long-term strategy for cancer control. In recognition of this, WHO recommends that "national policies and programmes should be implemented to raise awareness, to reduce exposure to cancer risk factors and to ensure that people are provided with the information and support they need to adopt healthy lifestyles."

neck and inguinal lymph node dissections, Trans oral robotic surgery, endoscopic parotid surgery, etc.

In short, with these advances



in minimal invasive surgery, MIS is completely safe and beneficial for cancer patients. Early Recovery After Surgery (ERAS), shorter hospital stay, negligible pain, minimal scars & complete removal/clearance of cancer tissue are some important benefits that prove even a major surgery need not be debilitating when done the minimal access way!

On this World Cancer Day, I urge people to stay away from tobacco consumption in any form and live a healthy life.