



Development of Cancer Management and Care in Central India

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Abstract

This is a survey report regarding the facilities of Cancer Management in Central India, consisting of Madhya Pradesh, Chhatisgarh and Rajasthan. These three states are considered less developed states medically in comparison to the northern, western and southern states. Madhya Pradesh with large population has more than 7 cities having many cancer institution/hospitals with advanced radiation centre and surgical/radiological units to improve diagnosis and management. Similarly, Chhatisgarh, a tribal state, is advancing forward with 3 centres of Advance Management for Cancer Patient. Rajasthan, Jaipur is the main centre of Advance Cancer Management with many private units operating, benefitting a large population in the state. Beside this, 5 more cities have centres of excellence in treating cancer patients with advanced radiation facilities, expert oncology surgeon and investigative facilities required in investigation and diagnosis.

Keywords Oncology · Carcinoma · Radiation · Linear accelerator · Radical procedures · Chemotherapy

Part 1

The Indian Cancer Society was founded in 1951 by Dr. D.J. Jussawala and Mr. Naval Tata as India's first voluntary non-profitable organization (NGO) for awareness, detection, cure and care of survivors with its national head quarter in Mumbai at Tata Memorial Hospital. Its aim was to open its branches in all the states and provide facilities of cancer patient treatment with the help of local people's participation and to establish cancer hospitals and total care of cancer patients.

M.P. Cancer Society was established in Indore, a branch of Indian Cancer Society in 1960 by Dr. B.B. Ohri, in M.Y. Hospital, an associated hospital of MGM Medical College Indore, and started M.P. Cancer Registry. Since then, efforts were made by M.P. Cancer Society to involve various social organizations to establish a cancer hospital in Indore. With the efforts of Dr. B.B. Ohri and other senior surgeons and

prominent public dignitaries, Shree Gyarah Punch Sanstha agreed to donate Rs. 11 Lacs to establish Shree Gyarah Punch Sanstha Cancer Hospital in Indore, and the government gave land in the M.Y. Hospital campus for its construction in 1962.

S.G. Cancer Trust constructed and equipped the hospital, inaugurated in 1964 by the then Chief Minister Shree Shyama Charan Shukla. It started with Cobalt 60 as a radiation source and has all other disciplines from different departments of the Medical College to treat cancer patient including Surgery Obs. and Gyan., ENT and Chemo Therapy Unit. In 1966, on the request of M.P. Cancer Society, Indian Cancer Society agreed to transfer the S.G. Cancer Hospital to the government of M.P. Since then, it is known as Govt. S.G. Cancer Hospital, a part of MGM Medical College Hospital under Dr. B.B. Ohri and radiotherapy department of M.Y. Hospital under Dr. M.M. Dwivedi and Dr. M.S. Gujral. Dr. M.M. Dwivedi was appointed as the first full-time Superintendent and Prof. of Radiotherapy along with Dr. M.S. Gujral and developed the institution with modern radiation technology, brachytherapy and radium implantation therapy, of high standard, one of few such institutions in India.

The Surgical Oncology unit was established in 1977 by Dr. Satish K Shukla, back from USA after 4 years of Oncology Fellowship and Associate training at Rosewell Park Memorial Cancer institution Buffalo NY, a State Cancer Institution of New York state. He started a Surgical

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Oncology training programme in head and neck, abdomen and thoracic surgery, started the laparoscopy unit as investigative procedures in 1977 as no USG or scan facilities were available and published many papers on the importance of tissue diagnosis in abdominal and thoracic masses and nodes with biopsies under local anaesthesia.

Two public societies came into existence in 1988, (a) Indore Cancer Foundation founded by chairman Dr. Satish K. Shukla and secretary Dr. Dignpal Dharkar and group of prominent doctors, businessmen, judges, lawyers, social workers and others and (b) Indore Cancer Trust headed by a business person Mr. Gajra and Dr. B.B. Ohri and other business people from the city.

The government gave 10 acres of land to each, and both started constructing modern cancer institutions with comprehensive management consisting of the best equipment in various disciplines. Indore Cancer Trust with the help of Nargis Dutta Foundation started the radiotherapy centre in 1991, inaugurated by Shri Sunil Dutta, a film actor and congress politician. It has a well-developed head and neck and other surgical units giving the best treatment.

Indore Cancer Foundation also started a Cancer Hospital with modern Radiation unit with the help of Nargis Dutt foundation. It is a 50-bedded, well-developed cancer institution with primary care, rehabilitation and awareness programme.

In 2011, CBCC (Comprehensive Blood Cancer Care), an American-based company, started eleven advanced radiotherapy institutions in collaboration with other super specialty hospitals in India. One such unit started in Indore providing world class comprehensive radiation unit with all the latest/advance equipment. It is a well-developed oncology institution with all disciplines working to give total care of cancer patients.

Choithram Hospital is a multi-specialty hospital of 400 beds since 1978, started a radiation department in 2009 and provided advanced care facilities in all disciplines of surgery, radiation, chemotherapy and others.

Shree Aurobindo College of Medical Sciences started an advanced radiation centre in collaboration with a Delhi-based company in 2004, now run by the department of radiation oncology and giving full care to cancer patients.

Shalby Hospital (2017) and CHL Hospital (2022) are multi-speciality hospitals with very good infrastructures and developed departments including the oncology section with surgery, radiation and chemo therapy units.

CHL Hospital 114 (Cancer Hospital), with a modern, newer version of linear accelerator (Harmony Pro Unit, the first of its kind in India) and other advanced equipment in radiotherapy/radio diagnosis, started a new oncology centre recently in 2021.

Shri Shitla Sahai, who lost his son Rajiv suffering from bone cancer (osteosarcoma), started Jan Vikas Nyas in May

1971. The government of M.P. gave 266 acres of land on a hill near Government Medical College and G.R. Medical College Hospitals Gwalior. The Trust constructed the Gwalior Cancer Hospital along with nursing college and paramedical institutions. Advanced radiotherapy units, advanced surgical units and other disciplines like chemo and immune investigative facilities started functioning in 1977. It was given a status of Regional Cancer Center, one of 10 such institutions in India, second in M.P. (first in Padhar Betul Dist) serving a large population around the Gwalior area. Dr. S.R. Shrivastava (trained surgical oncologist), son-in-law of Shri Shitla Sahai, took over as Director of the institution with increasing and better quality care of cancer patients. It also has good awareness programme and rehabilitation unit to help patients. It is a comprehensive cancer centre with an advanced linear accelerator as a part of the radiotherapy unit, modern surgical oncology dept., dealing with all advanced surgical procedures.

Gwalior has two more radiotherapy centres besides the Regional Cancer Centre giving total care to cancer patients — Govt. Medical College Hospital (J.A. Hospital—2005) and Birla Hospital (2015).

Padhar town in district of Betul in MP is having a Christian Hospital developed by Christian Missionary with 200 beds under the guidance and supervision of Dr Clement F. Mosses in 1958 with all major departments and facilities as par with developed hospitals in bigger towns. In 1982, as a part of developing the Rural Cancer Project, Christian Mission started a well-developed radiotherapy centre, the first of its kind in Southeast Asia. It covered a very large area and population, giving cancer management in all specialties as par available in India at that time in radiotherapy, surgery and other disciplines. It was recognized by the government of India and Christian Missionary for training and treatment purposes. Now, it has modern advanced radiotherapy units and trained oncology team in all disciplines giving comprehensive treatment to cancer patients.

Jawaharlal Nehru Cancer Hospital — Bhopal

Shri Madan Mohan Joshi, a journalist, writer and philanthropist of vision for public care and service, formed a society named as M.P. Cancer Chikitsa avam Sewa Samiti (M.P. Cancer Treatment and Service Society) registered on 12 January 1995. Being an influential journalist and having contacts with most of political personalities of all political parties and the city's influential persons, he was able to enrol most of the semi government organizations as members of this society. With his efforts, the society collected donations and constructed a 200-bedded modern cancer hospital on a land given by the government. It was inaugurated in 1994 and since then developed it as modern high-tech radiotherapy centre with its modern facilities, surgical oncology,

chemotherapy, immunotherapy and highly efficient and modern investigative facilities in most of the disciplines. It is an exclusive cancer hospital with trained and qualified oncologist in all disciplines giving best of care and total management to cancer patients.

Bhopal Besides Jawaharlal Cancer Hospital, there are five other centres having well-developed radiation units and providing all other oncological services like surgery, chemotherapy, radiotherapy, pathology and other basic investigative facilities: Bansal Hospital (2016), Chirayu Hospital (2015), Navoday Hospital (2012), Govt. Hamidia Hospital (1967) (Gandhi Medical College attached hospital) and All India Institute of Medical Sciences (AIMS 2020).

Jabalpur A cancer hospital was started under Govt. Medical College with 50 beds and installed a cobalt unit to treat cancer patients. Gradually, the centre developed into a comprehensive cancer management unit under Government Medical College.

Government Medical College Hospital, Jabalpur started a radiation department in 1970 and with all the departments of the college providing total care to the cancer patients.

In Jabalpur, other private institutions giving total comprehensive management including developed radiotherapy units, surgical and chemotherapy services besides all investigation facilities are City Hospital (2018) and Metro Hospital (1998).

Rewa Medical College (2016) and Radiotherapy Center Birla Hospital Satna (2008) started modern radiotherapy units and other developed departments to give total care to cancer patients.

Chatisgarh

Raipur had Cobalt Radiotherapy Centre in Government D.K. Hospital started way back in 1976, by a trust. Later, the Regional Centre of Govt. of India was started in the same hospital under Govt. Raipur Medical College with linear accelerator and other facilities covering total cancer care including surgery, chemotherapy, radioimaging and an awareness programme.

All India Institute of Medical Sciences, Raipur, started a radiotherapy centre in 2018 and developed a well-developed oncology total care unit. Two other hospitals — Sanjeevani (2012) and MMI Hospital (2019) — are having radiotherapy (linear accelerator) and other advance facilities serving cancer patient.

In this region, the Bhilai Steel Plant Hospital started a radiotherapy unit in 1990 and later developed in advance

radiotherapies centre with other department participation to do advanced surgical and chemotherapy units.

Bilaspur Apollo Hospital is a multi-speciality hospital that has an advance radiotherapy unit with two linear accelerator units and other developed departments to give total care to cancer patients.

Cancer Development in Central India — Part 2

Rajasthan

Jaipur has one of the oldest medical colleges in the country that started in 1954 named after the ruler of the erstwhile state of Jaipur: Maharaja Sawai Madho Sing. It is a medical institution with well-developed departments of radiotherapy and surgery and other departments providing high-quality services to cancer patients. It has very well-developed investigative facilities in all basic departments including radio diagnosis, pathology, biochemistry and microbiology.

Co60 cobalt unit started in 1975. The upgraded radiotherapy dept. was started in 1985 with the installation of a 2nd Co60 cobalt unit (Toshiba) and one more Co60 cobalt unit (ATC-19 in 1995 and an advanced Co60 unit (Bhabhatron-II) in 2017. Brachy Cobalt (Be Big) started in 2009. The first linear accelerator (Siemen) with Simulation 4-D was installed with many accessories to treat cancer patients by various methods to give best results. A surgical oncology unit was started in 2016 with Dr. Govind Sharma heading the unit with specialized units to take care of oral, head and neck, thorax and abdominal malignancies.

Mahatma Gandhi Hospital Jaipur started a radiotherapy department by installing true beam Co60 in 2015, brachytherapy in 2016 and a unique unit in 2018. HCL Linear Accelerator is a well-developed radiation oncology centre with expert surgeons and physicians in oncology taking care for cancer patients as necessary. HCG linear Accelerator-Varian's Vital Beam started in March 2018.

Soni Manipal Hospital started its radiotherapy unit by installing the linear accelerator LINA Siemens 2007 and an HDR brachytherapy unit in 2009. Facilities for surgical oncology procedures are available of quality.

Shalby Hospital started its oncological centre by installing a linear accelerator in 2018 and has trained oncology specialists in all specialities.

Udaipur Ravindra Nath Tagore Medical College is a pioneer institution in the state with all well-developed departments taking care of advanced procedures. A radiation cobalt unit started in 1971. Later, a dept. of radiotherapy was started

in 1985 with a new cobalt Co60 (Toshiba). A 2nd unit ATC/9 was started in 1995 and third unit — Bhabhatron-II — in 2017 and Brachy Cobalt (Bebig) in 2009. Brachytherapy Cobalt (Belog) in 2009. Linear Accelerators installed - Simulator 4D Siemens in 2020 and Lac Electra in 2022.

RNT Medical College has all specialities and well-developed investigative facilities to take care of all oncological problems.

Geetanjali Medical College Hospital has a developed radiotherapy department with a Co60 cobalt unit and one linear accelerator.

Bhagwan Mahavir Cancer Hospital is serving cancer patients with basic facilities of radiotherapy surgery and basic investigative departments.

Jodhpur All India Institute of Medical Sciences (AIIMS) started in Jodhpur in 2014. The department of radiotherapy was started in 2016 with a linear accelerator under the guidance of Dr. Sanjeev Misra, Director and Surgical Oncologist. It has oncological services available in all clinical and non-clinical departments.

Dr. Sampurna Nand Medical College (Govt. Medical College) is one of the oldest medical colleges in the state and has developed radiotherapy and surgical depts. to give comprehensive treatment to cancer patients. It has Co60 teletherapy (Theratron), HDR brachytherapy Co60 and a unit of linear accelerator.

Sancheti Hospital is a multi-speciality hospital with facilities to treat cancer patients. It has one linear accelerator and surgeons trained in treating cancer patients.

Regional Cancer Institute is under consideration.

Kota M.B.S. Government Medical College Hospital started its department of radiotherapy in 1994 and installed Cobalt Co60 (Cathetron). A linear accelerator is in process to start.

Sudha Hospital is a multiple super specialty hospital. It has a radiotherapy dept. with linear accelerate unit

since 2016. Surgical oncological procedures are done by specialists.

Bikaner is pioneer in cancer treatment when the star project of the government of India “Regional Cancer Center” was established in 1965 with a unit of Co60, the first of its kind in Rajasthan. Later, Government Medical College and its attached hospital started in 1994. Later, the regional cancer centre was a part of Government Medical College and started a second unit of Co60 unit and a project linear accelerator is in progress.

Ajmer J.L.N. Government Medical College is an old institution of more than 50 years and has a radiotherapy unit Co60 since 1993. Medical College Hospital has well-developed departments and gives comprehensive management to cancer patients.

Declarations

Competing Interests The authors declare no competing interests.

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