Cancer control in Tunisia: changing perceptions and improving access to care

By Aabha Dixit

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— Mohamed Faouzi Ben Slimane, Head, Biophysics and Nuclear Medicine Department, Salah Azaïz Institute–Cancer Centre, Tunis

Cancer isn't a death sentence. If detected and treated early, it is curable. This is the message Tunisian doctors are delivering to their patients.

Increasing awareness about cancer prevention and treatment among the population at large are vital to the Tunisian Ministry of Public Health's outreach efforts. These include education about the role of radiation medicine and technology (see The Science box), and explaining to people that nuclear imaging techniques are safe, painless and cost-effective.

"There is a phobia about nuclear applications in medicine," said Mohamed Faouzi Ben Slimane, Head of the Department of Biophysics and Nuclear Medicine at the Salah Azaïz Institute in Tunis and Head of the National Radiation Protection Centre. "Public campaign drives are regularly conducted to remove ignorance and widen awareness about the benefits and effectiveness of radiation technology for cancer treatment."

A doctor uses a SPECT scan machine on a patient at the Salah Azaïz Institute–Cancer Centre of Tunis.
(Photo: Salah Azaïz Institute–Cancer Centre of Tunis)

The doctors are confident that they can overcome the psychological barrier through a well-constructed and targeted campaign that provides simple, relevant and practical information about medical imaging and radiotherapy and how it can help improve patient care. "The success is that we are demystifying the 'taboo' attached to cancer, resulting in more people coming forward for check-ups," Ben Slimane said.

About 8000 new cases of cancer were recorded in Tunisia from 2011 to 2015, according to the country's Ministry of Public Health, with lung and breast cancer being the most common. The Salah Azaïz Institute conducts over 20 000 diagnoses annually, and over 12 000 patients undergo treatment. "We have to ensure that the radiation treatment and dosages are accurate, and carefully monitored, as our priority is the care given to cancer patients," Ben Slimane added. There has been an increase in cancer cases in Tunisia over the past couple of years. The total number rose from 2553 in 1994 to 3926 cases in 2009, with an annual average increase of 3.3%. However, this average number showed a relative, but not significant decline with 3715 during the period between 2009 and 2011.

As in the majority of low and middle income countries, the growing cancer burden is putting a considerable strain on the public health system in Tunisia. With the support of the IAEA, the country's doctors are working to meet a growing demand for cancer care, which includes convincing people to undergo cancer therapy at the earliest opportunity.

Catch early, treat swiftly

Ongoing training of medical staff is essential. "Not only do these technologies help oncologists like me to view the body and select the best treatment required to deal with different types of cancer, but we also need to make sure we use the correct radiopharmaceuticals, which are vital to track the progress achieved and assess how the body is reacting and functioning," Ben Slimane explained.

This is an area in which the IAEA is playing an important role. It has assisted Tunisia with training, knowledge transfer and assistance in the proper and safe use of radioactive sources

for cancer treatment. IAEA experts have conducted training for radiopharmacists and medical physicists to improve quality control and the safe use of radiation medicine and equipment.

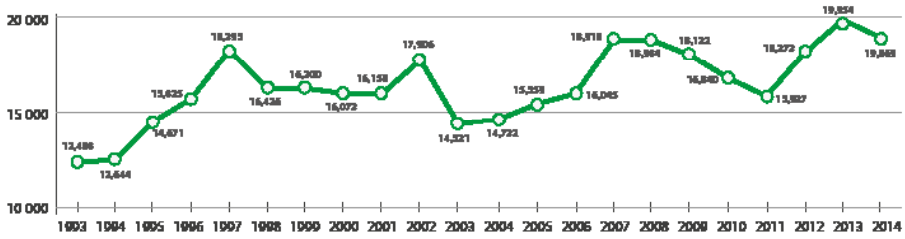
"We work hand-in-hand with medical physicists to ensure that they have the right knowledge and training to protect themselves and the patients," said Azza Hammou, a paediatric radiologist and the former Head of the National Radiation Protection Centre. "Our safety protocols are in line with IAEA safety standards." Doctors and technicians handling nuclear medical applications have to implement correct procedures while strictly following safety guidelines, she said.

Quality assurance in radiation medicine is a complex process. It covers the assessment of clinical, physical and technical aspects of diagnostic imaging and radiation treatment, as well as management controls that are essential to avoid errors, accidents and misdiagnoses. The IAEA's support includes the provision of technical guidance for implementing and reviewing quality assurance programmes for radiotherapy, nuclear medicine and diagnostic radiology at hospitals.

The IAEA has supported Tunisia in its efforts to improve cancer control for decades. The country now has 17 radiotherapy machines for its population of 10 million, placing it above most countries in Africa, said Adnan Atwa, Programme Management Officer for Tunisia at the IAEA's Department of Technical Cooperation. Since 2013, the Tunisian Government, with IAEA support, has established radiotherapy centres in Tunis, Sousse and Sfax, which are equipped with a new generation of linear accelerators (linacs). These accelerators are most commonly used to treat patients by delivering very precisely localized, high-energy X-ray irradiation to tumours. The IAEA is also assisting the country by providing specialized training, including fellowships and scientific visits, on medical physics and radiotherapy.

To assess Tunisia's cancer control capacities and provide recommendations on its comprehensive national cancer control programme, the IAEA and its partners conducted an integrated mission of the IAEA's Programme of Action for Cancer Therapy, or imPACT Review, in Tunisia in late 2013. This has helped the country identify priority actions for strengthening cancer control planning, prevention, early detection, diagnosis, treatment and palliative care capacities. It has also contributed to the enhancement of Tunisia's active cancer registry that keeps track of cancer cases.

Number of cancer tests performed at the Salah-Azaïez Cancer Institute in Tunis



Quick Facts

In 2012, 14.1 million new cases of cancer were reported worldwide, and this number is projected to reach 24.6 million by 2030.

THE SCIENCE

Radiation medicine

Nuclear and radiation techniques are commonly used in the diagnosis and treatment of a large number of health problems such as infectious and non-communicable diseases, particularly cardiovascular disorders and cancer. Nuclear medicine procedures with radiopharmaceuticals are used for the diagnosis and management of diseases. Diagnostic radiology mainly involves the use of X-rays and CT (computed tomography) in the detection of diseases. PET/CT (positron emission tomography combined with X-ray computed tomography) is a hybrid technology that allows better detection and staging of diseases by displaying both anatomical and functional abnormalities within the affected organs. Radiotherapy is used to complement surgery and sometimes chemotherapy for cancer treatment.