Health Experts Aim To Curb Potential Epidemic

By Kate Travis

CANCER IN AFRICA

It seems like cancer should be the least of the health worries in most of the countries on the African continent, where communicable diseases are the leading cause of death and the life expectancy in more than half of the countries is under 50 years.

Compared with those of Western countries, cancer rates in the region are relatively low. But the prognosis for cancer in Africa looks grim: In sub-Saharan Africa, there were 582,000 new cancers diagnosed in 2002, and 412,100 people died from the disease. If no interventions are put in place, it’s expected that the number of new cases diagnosed will rise to 804,000 and mortality will reach 626,400 by 2020.

The reasons why vary: Skyrocketing rates of human immunodeficiency virus (HIV)/AIDS have led to a rapid increase in the incidence of Kaposi sarcoma and other AIDS-related cancers; risk factors such as obesity and alcohol use are on the rise, affecting cancer and other noncommunicable diseases that share these risks; and there is a worrisome escalation in smoking rates among Africans, a trend that, if it continues, is sure to lead to a glut of tobacco-related cancers.

“I was taught in medical school that cancer is not a problem in Africa. But that is a myth,” said Twilib Ngoma, M.D., executive director of the Ocean Road Cancer Institute in Dar es Salaam, Tanzania. “If we don’t do something now, [cancer rates are] going to increase. We should not be complacent just because we find that infections are more of a problem now.”

Ngoma was one of several speakers at a May meeting in London aimed at raising the profile of the cancer problem in Africa. Among the attendees were health ministers from 22 African nations and representatives from the World Health Organization, the World Bank, the Gates Foundation, the National Cancer Institute, the U.K. government, and the pharmaceutical industry. The goal of the meeting, which was organized by the University of Oxford and the Program of Action for Cancer Therapy (PACT), a part of the International Atomic Energy Agency (IAEA), was to spell out Africa’s cancer burden, identify barriers to treatment and research, and define ways to curb the cancer epidemic and better treat the patients who already have the disease.

“It’s like global warming,” said Ian Magrath, M.D., president of the International Network for Cancer Treatment and Research in Brussels. “Do we want to wait until it’s too late, or do we want to start working now to try to prevent cancer, to try to diagnose it earlier and try to improve the results of treatment and provide palliative care? Why wait for a catastrophe?”

Africa’s Cancer Burden

Much of the data available on cancer in Africa come from hospital-based registries—and even then, the information is probably incomplete and doesn’t represent a true picture of a country’s cancer burden. This lack of data is a serious issue for getting cancer on the national health agenda.

Doctors do know, however, that some 70%-80% of cancer patients in Africa are diagnosed with late-stage disease. “Very few patients diagnosed with cancer survive their cancer,” said Innocent Nyaruhirira, M.D., the minister of state for HIV/AIDS and other epidemics in Rwanda.

The reasons for such late diagnosis vary, ranging from health care providers not having the expertise to adequately diagnose cancer to patients seeking treatment from faith healers and traditional medicine before visiting a health facility. “Ignorance is the main thing that continues,” noted Mompati Mmalane, M.D., director of clinical studies in the Ministry of Health in Botswana. “Health care in Botswana is free, so it’s not a matter of finance. The issue is ignorance and public awareness.”

In some regions, people don’t understand what cancer is, or the word “cancer” itself is considered taboo. “In Sierra Leone, and in Africa in general, cancer is called by various names, not necessarily ‘cancer,’” said Abator Thomas, minister of health and sanitation in Sierra Leone. “People think it’s witchcraft, or a big boil. There’s a lot of stigma to it, so people shy away and hide.”

In Mmalane’s country, the prevalence of HIV is 24%—one of the highest in Africa—so it’s not surprising that the cancer with the highest incidence is Kaposi sarcoma. But the rest of the top cancers are tied to infection as well: cervical cancer (human papillomavirus), liver cancer (hepatitis B), stomach cancer (Helicobacter pylori), and Epstein-Barr virus and Burkitt lymphoma and head and neck cancers. In fact, most of the top cancers in all of Africa are somehow infection related (see Stat Bite, p. 1151). In The Gambia, for example, where the HIV prevalence rate is...
just 3%, the top cancer is cervical cancer in women and liver cancer in men.

Health Care Conundrum
By Western standards, the cancer care facilities in many African countries are sparse at best. For example, in Tanzania, which has a population of 58 million people, there is one cancer treatment center—the Ocean Road Cancer Institute—to handle the 35,000 new cancer cases diagnosed each year. In Botswana, there is one hospital in the country that has a cancer department. That department doesn’t have radiotherapy facilities, and their one mammogram machine is currently broken. And Rwanda has so few doctors and such limited resources that it spends $2 million per year to send patients abroad for treatment.

For these countries, tackling cancer as a national health problem will involve major investments in infrastructure. Because so many of the cancers diagnosed in Africa are late-stage cancers, palliative care plays a huge role in treating the disease and should be a major part of that infrastructure, said Anna Mary Nyakabau, M.D., a radiotherapist and oncologist in Harare, Zimbabwe. “For these people, control of pain and symptoms is the only treatment,” Nyakabau said. “For us to succeed, we have to train our own pathologists and oncologists if we want to have a sustainable program.” He pointed out that the two oncologists in Botswana and all the pathologists are expatriates. And even with the help from abroad, there aren’t enough pathologists to read slides from Pap smears performed at health clinics around the country. He would like to see a cancer training center in Africa that has a recognized, rigorous program. “One of the reasons we don’t have enough doctors from Botswana is because we have been thinking that if you want to get good doctors, send them to the U.K., Australia, New Zealand,” Mmalane said. Unfortunately, when they complete [their studies], they don’t all come back. “If you can have a reliable curriculum in an African country and send our students there, they’re likely to come back.”

Moving Forward
The unique issues surrounding cancer prevention, diagnosis, treatment, and training mean that experts have their work cut out for them when setting priorities for fighting cancer in Africa. For example, simply implementing an early detection program may be useless in a country that doesn’t have an oncologist or cancer care facilities.

“The problem for us is that early diagnosis without good treatment will do nothing,” said Paul Ndom, M.D., president of the African Organization for Research and Training In Cancer (AORTIC) and an oncologist in Cameroon.

As many Western countries have learned, one way to start building an effective cancer program is to develop a national cancer control plan. Just two countries in Africa have formal plans. IAEA/PACT is funding pilot projects in several countries—including Tanzania—to help them set up cancer control plans. “If you look at the cancer plan from the U.K. or Australia, or Canada, that will not be very much of a help because our situation in Africa is different—our problems are unique to Africa,” Ngoma said. “So each individual country has to go through the process to make a decision about what to do.”

As a part of the pilot project, a steering committee in Tanzania is gathering data on demographics, cancer occurrence, risk, health and social system data, and information about existing resources. All of this will help establish the problems and the barriers to get a clearer picture of how to move forward.

In cash-strapped countries, it’s important to show with concrete data how spending more money on, for example, cancer treatment facilities or vaccination programs will ultimately save lives and improve quality of life for people diagnosed with cancer.

“The results of these pilot projects are going to give us exact figures,” said Massoud Samiei, Ph.D., head of the PACT program. “We have good estimates of the cost. In prevention, early detection, treatment, mortality, the overall cost for the health care system is not so huge, but it has to be estimated. You have to show positive outcomes for the patient, and this takes some years of work.”

The product of the May meeting was the London Declaration on Cancer Control in Africa, which outlines actions that will better prepare African countries to cope with an increasing cancer burden. It’s a document the meeting organizers hope will make its way into the hands of policymakers, governments, research bodies, and funders.

“For me, it’s about not only the size of the challenge but the size of how much can be won,” said oncologist and Oxford professor David Kerr, M.D., D.Sc., who was one of the meeting’s organizers. “Most of my life in the West is looking at small but steady incremental changes in cancer cure rates and improvement. But in Africa, because we’re starting at such a low level, if we apply there that which we know now cost effectively, we can save hundreds of thousands of lives very quickly. That’s a challenge and that’s a win to me as a practicing cancer physician.”