

Cancer and its relationship with HIV/Aids



Ask Uganda Cancer Institute

Cancer and HIV/Aids are two major public health challenges that continue to affect millions of people globally, and Uganda is no exception. Although they are distinct diseases, their relationship is profound, complex, and extremely significant for both prevention and treatment efforts. As Uganda strengthens its health system and works toward improving outcomes for all citizens, it is important for the public to clearly understand how HIV increases the risk of certain cancers, how these cancers present, and what can be done to prevent, detect, and treat them early.

HIV weakens the body's immune system by attacking CD4 cells, which play a critical role in fighting infections and abnormal cell growth. When the immune system is compromised, the body becomes less capa-



ble of detecting and destroying cancerous cells. As a result, people living with HIV are at a higher risk of developing cancer, particularly what are known as HIV-associated or Aids-defining cancers. These include Kaposi Sarcoma, Non-Hodgkin Lymphoma, and cervical cancer, three cancers that continue to place a heavy burden on Uganda's health system.

Kaposi Sarcoma (KS)

Kaposi Sarcoma is the most common HIV-related cancer in Uganda and, historically, one of the leading cancers treated at the Uganda Cancer Institute (UCI). It is caused by the Human Herpes Virus 8, but HIV-induced immune suppression accelerates the growth of KS lesions on the skin, in the mouth, and within internal organs. With early initiation of antiretroviral therapy, many cases can be con-

trolled, and outcomes from cancer treatment improve significantly.

Non-Hodgkin Lymphoma

Non-Hodgkin Lymphoma affects the lymph nodes and the immune system. HIV increases the risk of developing this cancer by up to one hundred times compared to the general population. While it is an aggressive disease, it responds well to chemotherapy when patients seek care early and receive consistent HIV treatment and clinical support.

Cervical cancer

Cervical cancer, caused by persistent infection with high-risk human papillomavirus, is the most common cancer among women in Uganda. Women living with HIV are four to five times more likely to develop cervical cancer because their

weakened immune systems are less able to clear HPV infection.

This makes regular cervical cancer screening, HPV vaccination for girls, and timely treatment of pre-cancerous lesions absolutely essential in reducing illness and death.

Shared risk factors

Beyond immune suppression, HIV and cancer share several important risk factors.

These include chronic viral infections such as HPV, Hepatitis B, and Hepatitis C, as well as lifestyle factors such as smoking and harmful alcohol use.

Delayed access to healthcare further compounds vulnerability and often leads to late-stage diagnosis, which remains the greatest barrier to successful cancer treatment in Uganda.

Uganda has made notable progress in integrating HIV and cancer care. UCI works closely with HIV clinics to ensure patients on antiretroviral therapy are routinely screened for cancers linked to HIV.

HPV vaccination is now part of the national immunisation schedule, protecting young girls before they are exposed to the virus. The decentralization of cancer services through regional oncology centres has also improved access to care across the country, while increased public awareness campaigns have helped more Ugandans understand the link between HIV and cancer and the importance of early detection. These efforts continue to save lives, although more work is still needed, especially in community education, early screening, and the fight against stigma.

What you should know

It is important for the public to understand that HIV does not cause cancer directly, but by weakening the immune system it increases the risk of developing cancer. Consistent use of antiretroviral therapy greatly reduces this risk. Regular cancer screening, particularly cervical cancer screening for women and routine health check-ups for all people living with HIV, remains critical.

Vaccination also plays a powerful preventive role, with HPV and Hepatitis B vaccines offering strong protection against cervical and liver cancers. Most importantly, early treatment saves lives. When HIV and cancer are managed together, patients have far better outcomes and improved quality of life.