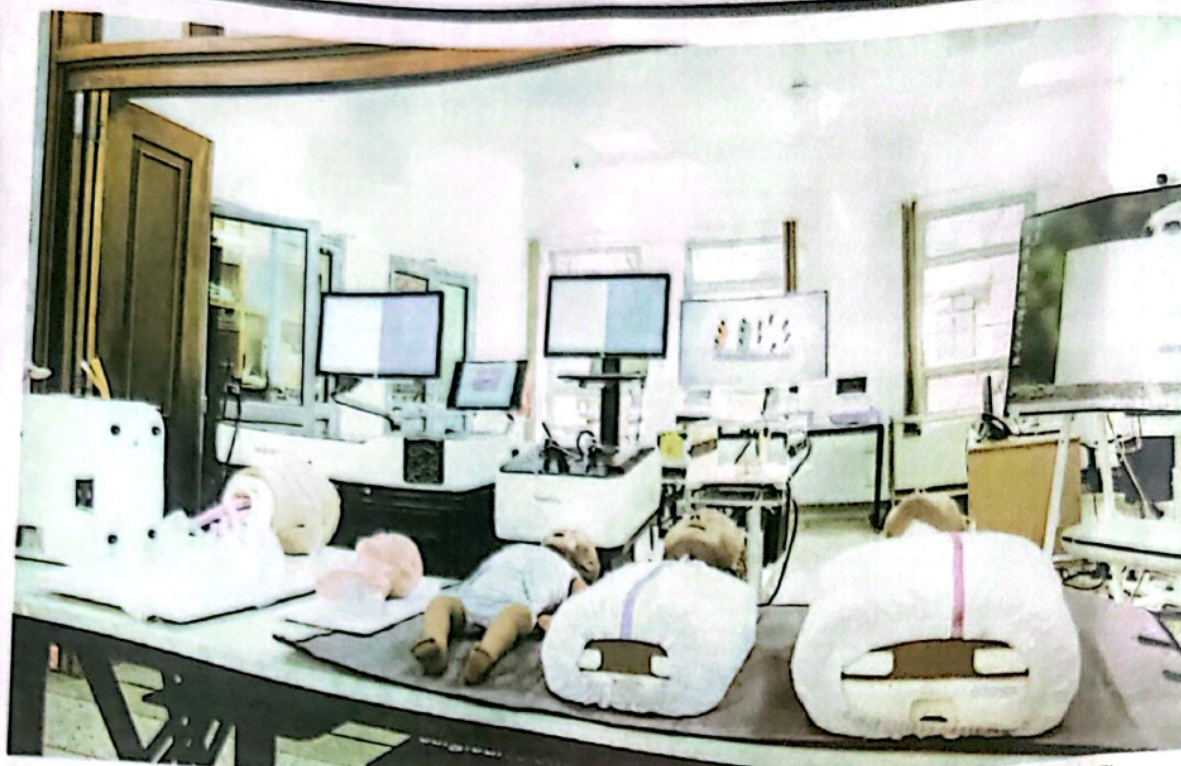




Among the most remarkable innovations are the surgical simulators, reportedly the first of their kind in the country. PHOTO/TONY MUSHOBOROZI

Rural Jinja facility brings new hope for liver cancer patients

A small surgical centre in Kyabirwa is offering microwave ablation for liver tumours and other minimally invasive procedures, bringing specialised cancer care closer to Ugandan patients at significantly lower cost.

BY TONY MUSHOBOROZI

Kyabirwa Surgical Centre might catch you by surprise. Nestled in the remote village of Kyabirwa in Bujagali, Jinja, it houses medical equipment that even some fully-fledged hospitals in Uganda and the wider region would envy. Among the most remarkable innovations are the surgical simulators, reportedly the first of their kind in the country. These high-fidelity machines are used to train doctors in advanced surgical techniques, attracting trainees from countries such as Egypt and South Africa.

"Kyabirwa has state-of-the-art simulation machines for surgical training. The advantage of having them here is that we no longer have to pay thousands of

dollars to travel overseas for similar programs," says Dr Joan Babalanda of Mbarara Regional Referral Hospital. She recently completed a laparoscopy training at Kyabirwa and plans to return for an endoscopy course later this year. According to Babalanda, the increasing demand for minimally invasive surgeries makes such local training programs essential.

Doctors from across the region are drawn to Kyabirwa because the facility is internationally certified, offering courses recognised by professional associations abroad.

"The equipment at Kyabirwa is unique in East and Central Africa," notes Dr Dennis Okwir of Lubaga Hospital in Kampala. He adds that the centre's advanced technology has led even larger hospitals to refer patients there. Most surgeries at Kyabirwa are minimally invasive, allowing patients to return home the same day and continue follow-up care at home.

Affordable specialised care

One of Kyabirwa's flagship procedures is microwave ablation (MWA), a technique that uses microwave energy to destroy cancerous liver tumours with heat. Before the procedure was available local-

ly, patients often had to travel overseas for treatment, incurring costs ranging from approximately Shs10m to Shs40m or about \$3,000 to 11,500, depending on the condition and country. At Kyabirwa, the procedure costs as little as Shs2m.

Other services at the centre are equally affordable. A general consultation costs around Shs10,000, while follow-up visits are Shs5,000. Basic laboratory tests, including malaria, typhoid, and HIV screenings, can be done for Shs25,000. Ultrasound scans for the abdomen or pelvis start from Shs20,000, colonoscopies cost around Shs150,000, endoscopies cost Shs300,000, and hernia procedures are about Shs350,000. These rates are possible thanks to support from Global Surgical Initiatives (GSI) and partnerships with international institutions such as the Mount Sinai Health System (USA).

"Many rural communities avoid surgical treatment due to lack of resources, limited awareness, or high costs. We aim to demonstrate that quality surgical care can be both safe and affordable," says Dr Joseph Damoi Okello, the chief surgeon at Kyabirwa.

Microwave ablation explained

Microwave ablation targets liver tumours with precise heat. A probe is inserted into the cancerous tissue, which is then heated to destroy tumour cells without harming surrounding liver tissue.

"The technology is precise. For cancers up to five centimetres in size, we can select the ablation zone to match the tumour dimensions, leaving healthy tissue unaffected," explains Dr Okello.

The treatment is recommended for patients with a single liver tumour no larger than five centimetres or up to three nodules each no bigger than three centimetres. Catching tumours early is crucial because liver cancer often progresses silently. Symptoms, such as abdominal pain, jaundice, weight loss, and chronic fatigue, typically appear only when the disease has advanced.

Though MWA is a relatively new tech-

WHY EARLY DETECTION MATTERS

- Liver tumours often have no symptoms in early stages.
- Ultrasound scans and blood tests can help detect liver cancer early, when treatment is most effective.
- Early-stage liver cancer has significantly better survival outcomes compared to late-stage disease.

Prevention and risk factors

- Vaccination against hepatitis B significantly reduces cancer risk.
- Regular screening is recommended for people with hepatitis or chronic liver disease.
- Avoiding excessive alcohol consumption and aflatoxins (toxins from stored grains) also helps.

nology in Uganda, it has led to other cancers, including lung and kidney. In other parts of the country, the focus is on liver tumours. Since launching a program in mid-July last year, treated more than eight patients, several more awaiting treatment. Patients with advanced liver tumours are referred to specialised centres for alternative treatments such as chemotherapy.

Remote collaboration

Kyabirwa leverages technology to collaborate with specialists. Specialists can provide advice during procedures, edge transfer and mentorship across a distance. This approach ensures continuous skill development and surgical support for the centre.

Simulation lab: Training ground

A standout feature of the AI-driven surgical simulation lab is that it allows doctors to train in a risk-free environment. The lab offers six courses, including laparoscopic surgery, which is a technique rarely taught in Uganda. A step-by-step guide, immediate feedback, and correction of errors are provided during the training.

"The simulation lab is thorough. At the end of the training, they receive an assessment of their strengths and areas for improvement. This helps ensure the quality of the surgery," says the coordinator. To date, more than 100 doctors have trained at the centre.

Community outreach

In addition to specialised care, Kyabirwa has a strong outreach program. The centre plans to offer free services from March 2nd to 5th, providing a rare opportunity for patients who might otherwise go elsewhere for care.

Kyabirwa Surgical Centre has the potential to revolutionise liver cancer care in rural Uganda by delivering advanced, state-of-the-art technology at a community-centred price point. The facility's location in a rural area makes it a highly feasible solution for patients with liver tumours, a condition that is often treatable but has been a challenge to manage in rural settings.