

## EPIDEMIOLOGY, MANAGEMENT AND OUTCOME OF MALIGNANCIES SURGICALLY TREATED AT A RURAL REFERRAL HOSPITAL IN BUTARE, RWANDA

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**Background:** In 2008 the International Agency for Research on Cancer (IARC) reported 715,000 new cancer cases and 542,000 cancer deaths occurred in Africa. With increasing development and life expectancy, in Africa, that number will double by 2030. In countries where radiotherapy is not available and access to chemotherapy and cancer care is limited, understanding the available care and costs of surgical treatment for different cancers is essential for planning.

**Methods:** A Retrospective cross-sectional study of surgically treated malignancies at University Teaching Hospital-Butare (UTH-B) in Rwanda, for a period of 32 months (January 2011-August 2013). We analyzed operating records, corresponding pathology and financial department records.

**Results:** Of 3009 operations performed during the period reviewed, 208(7%) were for malignancies. Patients were predominantly male (59.6%), with a mean age of 51 years (2-91years). 54.8percent had symptoms for more than 1 year before surgery, 52.4% first sought treatment from traditional healers. Gastrointestinal malignancies comprised 37% of all cancer diagnosis, half of them were emergent presentations, for obstruction or peritonitis. Other cancers included intrabdominal tumors (9.6%), soft tissue sarcomas (8.6%), osteosarcoma (8.2%), melanoma (7.7%), penile cancers (7.7%), breast cancers (6.2%) and others (15%). Metastatic disease was present in 44.2% of patients. Surgical care was palliative for 52.9%. Only 7.7% received chemotherapy. The in-hospital mortality rate was 26.4%. Mean hospital stay was 25 days (1-342 days). Total medical costs were estimated at \$140,000 (\$673/patient), most (63%) from hospital stay.

**Conclusions:** The low number of cancer procedures, high rate of metastatic disease, and high percentage of emergency surgeries suggest that earlier diagnosis, treatment and access to chemotherapy in Rwanda is needed to avoid complications and high medical costs.

**Keywords:** Epidemiology-malignancies-operations-outcome-medical cost.

