

Abstract:

Introduction: More than 60% of gastrointestinal stromal tumours (GISTs) arise from the stomach and about 20% from the small intestine. About 95% of GISTs express kit receptor tyrosine kinase (CD117), which is used for purposes of diagnosis and targeted treatment. However, kit expression alone is not specific for GIST, nor does it necessarily imply that signalling through the kit kinase is the driving oncogenic event. Poor prognostic features of GIST include involvement of the liver and other bulky sites of disease. **Patients and methods:** We carried out a retrospective analysis of patients with CD117-positive leiomyosarcomas arising in the abdomen and treated through the Glivec International Patient Assistance Program (GIPAP) Clinic at the Nairobi Hospital between 7th November 2005 and 22nd November 2011. **Results:** In total 54 patients were included. Males were 36 (66.7%) and females 18 (33.3%). The age range was 25–86 years and the median age 50 years. The stomach was involved primarily in 22 of 47 cases evaluable (46.8%). The liver was primarily involved in 3 (6.4%) and liver metastases in 7 (14.9%) cases. None of 8 patients (0%) with evaluable liver involvement regressed or stabilized on treatment for at least 6 months compared with 10 of 14 (71.4%) from the stomach, 7 of 7 (100%) from the small bowel, and 7 of 13 (53.8%) with mesenteric/omental involvement. These differences were statistically significant ($P < 0.001$). **Conclusion:** Apparent lack of response by tumours involving the liver could suggest that the kit, or by extrapolation PDGFR- α overexpression, may not be the factors activating kit or PDGFR- α targets in this subset of patients, or they could be of exon 9 mutation predominantly. Mutational analysis studies may shed more light in this issue.