Drugs 2001; 61 (12): 1775-1776
0012-6667/01/0012-1775/$27.50/0

Imatinib

A Viewpoint by Brian J. Druker

Division of Hematology and Medical Oncology, Oregon Health Sciences University, Portland, Oregon, USA

Imatinib has significant activity in all phases of chronic myeloid leukaemia (CML) and in patients with metastatic gastrointestinal stromal tumours (GIST) which validates the pathogenetic roles of the aberrant tyrosine kinase activity of BCR-ABL and c-kit in CML and GIST respectively. The response rates in CML in blast crisis and GIST are particularly noteworthy as these cancers are notoriously refractory to therapy; responses to chemotherapy in GIST are less than 5%. Early results indicate the percent of GIST patients with durable responses to imatinib is greater than that in the blast phase of CML. Whether these responses will be maintained needs to be determined from further follow-up, as will the optimal use of imatinib in GIST patients. In blast phase CML patients, combinations of imatinib with chemotherapy are being investigated given the additive to synergistic benefits observed in preclinical studies. In patients with chronic phase CML, the durability of responses and long term toxicities will also require follow-up of patients enrolled in ongoing clinical trials. Whether imatinib should replace interferon-α-based regimens in patients not eligible for stem cell transplant remains to be determined from an ongoing Phase III study. Combinations of imatinib and other antileukaemic agents in the chronic phase are also being evaluated. However, the major issue is whether imatinib should be offered as firstline therapy instead of allogeneic stem cell transplant which, at present, is the only treatment known to cure CML. As it is unknown whether initial treatment with imatinib will compromise the outcome of transplant, it is difficult to decide whether delaying transplant for a trial of imatinib in a younger patient is advisable. In the absence of firm data, individual decisions regarding the choice and timing of transplant will continue to depend of such factors as patient age, availability of a well matched donor, individual prognostic factors and, of course, patient preference. For patients who are not candidates for transplant, imatinib offers an attractive alternative given the high response rates, once daily oral administration and manageable toxicity profile. ▲