Targeted therapies for chronic myeloid leukemia and cardiovascular system

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ABSTRACT

Morbidity of chronic myeloid leukemia is recorded in elderly population, in patients with coexisting significant risk factors for atherosclerosis and heart diseases. Molecularly targeted therapy, imatinib, dasatinib and nilotinib, improve significantly the prognosis. However, the similar molecular targets in the form of different kinases are essential for cardiovascular system and blocking their pathways may have adverse effects. There is evidence about risk of systolic heart failure related to imatinib, pulmonary arterial hypertension induced by dasatinib and ischemic events associated with peripheral arterial disease and observed during nilotinib therapy. Some groups of patients with defined risk factors need appropriate cardiac monitoring.

KEY WORDS: imatinib, heart failure, dasatinib, pulmonary arterial hypertension, nilotinib, peripheral arterial occlusive disease