Cardiovascular Toxicity of Molecular Targeted Therapy in Cancer Patients: A Double-Edged Sword 褚柏顯醫師

The annual incidence of cancer has increased over the past 20 years, yet the 5-year relative survival rate for cancer has improved with the increasing availability of advanced therapies, including molecular targeted therapy. Cardiovascular toxicity can develop with this type of targeted therapy, which can cause serious side effects including left ventricular dysfunction, hypertension, hypotension, QT prolongation, thromboembolism, and myocardial ischemia. In many ways, the quality of life primarily depends on the health status of patient cardiopulmonary function. However, risk factor assessment, routine monitoring, and prompt intervention remain the best strategy to deal with these patients with malignancies, to ensure that their cardiopulmonary function is maintained at the highest possible level.

Most previous studies on cardiovascular toxicity have focused on conventional chemotherapy. Molecular targeted therapy is a novel anticancer treatment; however, due to potentially adverse cardiovascular events from this therapy, oncologists and cardiologists need to work together to maximize the benefits. In this review, we focused on target therapy-induced cardiovascular toxicities, in particular cardiac structural, electrophysiological, and vascular effects.

Reference: Acta Cardiologica Sinica 2013;29:293-303.