

Need for the appraisal of uncommon side effects of a commonly prescribed drug- Imatinib

Dear Sir,

The concept of targeted therapy is emerging as an innovative, high potential new trend in cancer therapy. These drugs are not supposed to affect the normal cells and act selectively on cancer cells there by minimizing the systemic side-effects. However the results are not as expected. One of such novel drugs (first of its kind to be approved by FDA) is Imatinib, a Bcr-Abl tyrosine kinase inhibitor. It has been used in patients of chronic myeloid leukemia and Gastro Intestinal Stromal Tumor (GIST) and has been under evaluation for many more indications. It is usually well tolerated, with relatively minor toxicities like fluid retention and skin changes. However, with the time, oncologists are noticing newer side effects which were not reported in the initial phases of drug trials. The more recently reported ones are, Ototoxicity,^[1] cardio toxicity^[2] and optic neuritis.^[3] It is probably due to the mitochondrial dysfunction as hypothesized by Grazette *et al*, in their *in vitro* studies.^[4] This entity requires further attention as majority of the patients receiving therapy are relatively young, the therapy often leads to long disease-free survival and the toxicity [mitochondrial damage leading to cardio toxicity and neurotoxicity] results in considerable morbidity.

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