



AB003. Risk factors and management of anthracyclines-related cardiotoxicity in childhood cancers

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Abstract: Anthracyclines are among the most effective antineoplastic drugs and have gained widespread use in the treatment of numerous solid tumors and hematological malignancies. They can cause cytotoxic damage to cardiac cells, especially in combination with radiotherapy. Furthermore, cardiotoxicity increases with the cumulative dose and may lead to congestive heart

failure and cardiomyopathy. Other factors, including age, pre-existing cardiac disease, length of follow-up, gender, route of administration, concomitant exposure to some chemotherapeutic drugs, trisomy 21 and black race, play a role in increasing the risk of cardiac dysfunction. The protocol for the assessment of cardiac function in these patients should be based on a multi-modality approach. The prevention of anthracycline-induced cardiotoxicity is mandatory as children are expected to survive for decades after being cured of their cancer. Clinicians should investigate the presence of risk factors before starting therapy. Indeed, prompt recognition of modifiable risk factors can help reduce the cardiac damage and the development of acute heart failure.

Keywords: Anthracyclines; cardiotoxicity; children

doi: 10.21037/pm.2018.AB003

Cite this abstract as: Ruggiero A. Risk factors and management of anthracyclines-related cardiotoxicity in childhood cancers. *Pediatr Med* 2018;1:AB003.