Long-term endocrine effects of chemotherapy in cancer childhood survivors

Hesam Eshaghi[1] and **Ehsan Ghaedi**[2]
[1]Tehran University of Medical Sciences, Iran
[2]Ahvaz Jundishapur University of Medical Sciences, Iran

Advances in new therapies for childhood cancer have resulted in cure rates of almost 80%. But there is greater risk for developing late adverse effects after treatment, including obesity, high blood pressure, cardiovascular diseases, and impaired glucose metabolism. Endocrinopathies are among the most frequently encountered late sequelae in Cancer Childhood Survivors (CCS). Some of mentioned adverse effects are part of metabolic syndrome (MetS). Although the exact relation between cancer and MetS is not elucidated yet, but treatment factors (radiotherapy, chemotherapy) have been indicated to determine metabolic changes in CCS rather than baseline characteristics. Obesity is another concern in these patients which is reported to be higher among Acute Lymphoblastic Leukemia and brain tumors survivors. Obesity in situ can lead to inflammation as described in literature and also has considerable endocrine changes because of adipokines like Leptin and Adiponectin and others. Glucocorticoids treatment is one of risk factors in CCS. Impaired glucose tolerance because of osteocalcin dysregulation is another hormonal change which can cause harmful phenomenon like Insulin resistance. Undoubtedly nutrition has remarkable effect for management of these disorders. Based on child characteristics, type of cancer, type of therapy and present disorder, different management needs to be planned. Some of nutritional intervention aim to increase insulin sensitivity and some of them to prevent or treat obesity. So we wish we can explain these endocrinopathies and also nutrition management.

e: Hesam.es.sh@gmail.com