J Cancer Sci Ther 2016, 8:10(Suppl)
http://dx.doi.org/10.4172/1948-5956.C1.094

Management of neuroblastoma: Comparative study between first- and second-line radioionated meta-iodobenzylguanidine therapy and chemotherapy alone

Khaled El Sabban[1,2] and **Hijji Al Sakhri**[2]
[1]Cairo University, Egypt
[2]Alhada Armed Force Hospital Taif, Saudi Arabia

Context: Neuroblastoma is a high-grade malignancy of childhood; it is chemo- and radio-sensitive, but prone to relapse after initial remission.

Aim: The aim of this study was to document the impact of first- or second-line radioionated [131I] meta-iodobenzylguanidine (131I-MIBG) therapy or chemotherapy alone on the short-term response and long-term survival in untreated children and to further characterize the side-effects of MIBG treatment.

Materials & Methods: In this interventional randomized controlled study, 123 children with advanced neuroblastoma were divided into 3 groups according to the treatment strategy: 65 were treated by chemotherapy alone (group I), 30 children who were not responding or had relapsed after chemotherapy were treated by second-line 131I-MIBG (group II), and 28 children were treated by 131I-MIBG as first-line from the start (group III). External beam radiotherapy was given to bone and brain secondaries when detected. Staging work up was done before, during, and after management with a follow-up period of 5 years.

Results: The number of treatments with 131I-MIBG varied between 1 and 4 per patient (mean 3). Toxicity was seldom severe. Mainly myelosuppression was noticed. Response was documented before surgery for the primary tumor was performed. There were 9, 6 and 14 complete response (CR); 10, 18 and 16 partial responses (PR); 3, 2 and 23 with a stable disease (SD); and 6, 4 and 12 progressed in each group, respectively. Total actuarial survival was found to have a median of nearly 60, 55 and 33 months for groups I, II and III, respectively, with a statistical significant difference between the 3 groups.

Conclusion: The current study showed the effectiveness of MIBG as a first-line treatment in the management of locally advanced neuroblastoma cases with limited metastasis as initial response and long-term survival for the cases was favorable, while in cases with multiple metastases, chemotherapy should be given first-line and, in case of failure or relapse, second-line MIBG therapy is warranted.

kelsaban@gmail.com

The impact of intraoperative radiotherapy for the treatment of breast cancer in developing countries

Maha S A Abdel Hadi
University of Dammam, Saudi Arabia

The fast pace of urbanization in many developing countries coupled with the imposed changes in life style has resulted in many alterations in disease patterns. In developing countries, breast cancer has shown increasing incidence over the last decades with young age and advanced disease at the initial presentations. The lack of breast cancer awareness programs and scarcity specialized breast centers in the region further impacts negatively on the outcomes limiting the surgical options to liberal adoption of mastectomies that drives women away from early presentations. Developing countries are deprived from adequate centers to cover the population needs for radiation therapy; hence, breast conserving surgery is rarely an option. According to the International Atomic Energy Agency (IAEA) Consensus, the number of radiation oncology centers worldwide is scarce and mainly clustered in developed countries. Intraoperative radiotherapy (IORT) to be utilized in conventional operating rooms maybe a breakthrough in countries with limited resources. Based on the emerging numerous studies and strictly adhering selection criteria in our setup at King Fahd Hospital of the University of Dammam, IORT has shown a promising alternative, it is portrait as efficient, convenient, cost effective, sparing or shortening the patients the long sessions of external beam radiation while providing equally effective outcomes. IORT is an appealing treatment which is expected to propagate breast conserving therapy (BCT), early detection and restricting unnecessary mastectomies.

abdelhadi_m@hotmail.com