Radical IORT: Pros and cons; comparison of two trials ELIOT and TARGIT-A in breast cancer management

Background: IORT is an accepted standard treatment for early stages of breast cancer in selected cases. This is proven in two large trials: ELIOT and TARGIT-A based on electron high voltage beam and low kv x-ray energy respectively.

Method: Published results of the two trials aimed to evaluate local recurrence as the final outcome. In this study these result was comparing with each other.

Results: In ELIOT study the local recurrence rate is 4/4% versus 0.4% in the patients who received IORT and EBRT, in comparison to 3.2% and 1.3% in TARGIT-A trial, these differences needs to be under more consideration regarding the efficacy and beneficence of IORT. Hereby we are going to analyze the data of these two trials to confirm the strategy of IORT in breast cancer as boost or radical modalities. Patient selection according to classification of ASRTO or ESTRO guidelines confirmed the local recurrence rate of IOERT (ELIOT) in low risk patients similar to TARGIT decrease to less than 1.9%.

Conclusion: Statistical analysis revealed that in patients of both trials with matching clinical, pathological and biological Profile for both methods, the radical IORT using electron and Low kv-ratto are effective and acceptable. It seems in patients with low risk factors, IORT is more effective than EBRT; we compared ELIOT and TARGIT-A trial documents and found all similarity and difference and referred to these two trials recommending using IORT for selected cases of breast cancer.

Biography

Mohammad Esmaeil Akbari is a Professor of Surgical Oncology at Shahid Beheshti University of Medical Sciences (SBUMS). He is the head of Cancer Research Center and comprehensive Cancer Control Center at SBUMS, a board member of EURAMA (Europa-Asian Breast Cancer Association), a member of Iranian and the American Association of Surgeons and the President of the Association of World with No Tobacco. He is the editor in chief of Iranian Cancer Prevention Journal. Furthermore he has been chancellor of Isfahan University of medical science and deputy for health in Ministry of Health and Medical Education (MOHME) for more than 12 years. He has published a considerable number of papers and books in the field of epidemiology of cancer and oncology.

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