

wowcongress.com/oncology
oncology@wowcongress.com

PROCEEDINGS

WOMEN IN ONCOLOGY

GLOBAL CONFERENCE

2023

JULY 22-23 | VIRTUAL



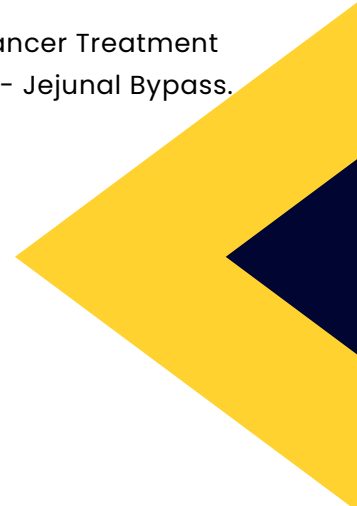
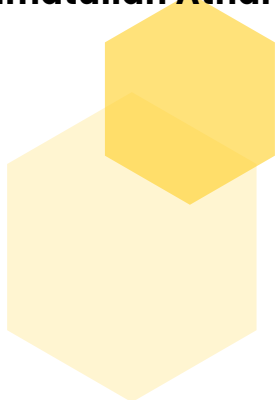
ORGANIZED BY
WOWCONGRESS

SCIENTIFIC PROGRAM

Speaker	Presentation Title
Prof Dr. Mutlu Dogan MD	Breast Cancer risk of Hormone Replacement treatment at younger age.
Prof. Dr. Bengu Depboylu	Treatment and Patient Related Quality of Life Issues in Elderly and Very Elderly Breast Cancer Patients.
Prof. Dr. Amira Youssef	The Impact of SKP2 Gene Expression in Chronic Myeloid Leukaemia.
Dr. Achouak Reziq	MRI in Cervical cancer: What to see?
Dr. Priscilla Faria Goretti	Nutritional Status, Mobility and Quality of Life of children and adolescents with Cancer.
Dr. Elvina Almuradova	Survival Metastatic Rectum Cancer Patients Who Underwent Metastasectomy Following Conversion Chemotherapy, But Not Received Pelvic Radiotherapy: (Turkish Oncology Group) study.
Dr. Karez Sarbst Namiq	Neoadjuvant Therapy in Non-Metastatic Breast Cancer in Kurdistan, Iraq.

SCIENTIFIC PROGRAM

Speaker	Presentation Title
Dr. Madzudzo Michelle Chishamiso	A Dosimetric Comparison of four three dimensional conformal Radiation Therapy techniques for Prostate Cancer.
Dr. Elshema Mohamed Ali	Physiotherapy in breast cancer survivors, A new hope.
Dr. Zahra Rezaei Borojerdi	Efficacy of Hyper CVAD plus Rituximab on one-year and three year Survival Rate of Patients with Acute Lymphoblastic Leukemia (B ALL) compared to Hyper CVAD Regimen in Iranian patients: a Non-randomized Clinical Trial.
Dr. Veronique Haddad	Advancing Precision Oncology through Comprehensive Genomic Profiling.
Asma Elmrini	Clinical Trails and the Role of the Oncology Clinical Trails Nurse in African Moroccan Experience.
Dr. Rahmatullah Athar	Total Gastrectomy for Gastric Cancer Treatment after Single Anastomosis Sleeve - Jejunal Bypass.





Conference Chair

Mutlu Dogan, Prof MD

University of Health Sciences,
Dr AY Ankara Oncology Training and Research Hospital,
Department of Medical Oncology,
Ankara, Turkey.

Topic: Breast Cancer risk of Hormone replacement treatment at younger age.

Hormone replacement treatment (HRT) is defined as substitution of hormones at physiological doses. It has been used for menopausal symptoms relief in postmenopausal women for years. There have been some concerns about HRT, such as breast cancer risk. It is easier to give up HRT for postmenopausal women for relief of symptoms related to menopause. However, younger women with premature hypoestrogenism (i.e. hypogonadism, bilateral oophorectomy, primary ovarian insufficiency) need HRT almost at reproductive age until average age of menopause (approximately 51 years), despite its risks. Risk-to-benefit ratio should be taken into account while managing these younger women.

Outcomes of HRT trials are mainly based on data in postmenopausal women. Because of limited data restricted to younger ones at reproductive age, outcomes of trials in postmenopausal women are generally extrapolated to younger females with primary ovarian failure. Women's Health Initiative (WHI) trial is the cornerstone data in this area. In this trial, postmenopausal women with intact uterus had combination HRT [CEE (estrogen) and MPA (progesterone)] while others with prior hysterectomy were given CEE (estrogen) HRT, and third arm was placebo arm (1). It was reported that risk of invasive breast cancer was increased with combination HRT (HR: 1.26) . On the other hand, breast cancer risk was decreased in only estrogen HRT arm. Invasive breast cancer risk increase in combination arm was confirmed in longer follow-up (2). Since most of younger women at reproductive age with absolute HRT indications have intact uterus, it seems to be rationale to use combination HRT formulations (i.e. estrogen and progestin), rather than unopposed estrogen HRT because of increased endometrial cancer risk with unopposed estrogen. Increased breast cancer risk is a concern in here, however HRT formulations also have been evolved in recent years. Transdermal combination HRT formulations with CEE and natural micronized progesterone are feasible. Combination oral contraceptives may be another option in this population (3). In conclusion, younger women with absolute HRT indications should be followed-up closely for breast cancer risk with combination HRT formulations. Risk-to-benefit ratio should be well-balanced while managing this younger population. They should be evaluated 'case by case' at multidisciplinary boards, including gynecologists, endocrinologists, medical oncologists and psychiatrists. A shared decision making should be kept in mind.

References:

- 1- Rossouw JE, Anderson GL, Prentice RL, et al. Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results From the Women's Health Initiative randomized controlled trial. *JAMA* 2002; 288: 31-33.
- 2- Manson JE, Chlebowski RT, Stefanick ML, et al. Menopausal Hormone Therapy and Health Outcomes During the Intervention and Extended Poststopping Phases of the Women's Health Initiative Randomized Trials. *JAMA* 2013; 310: 1353-1369.
- 3- Hormone therapy in primary ovarian insufficiency. Committee Opinion No. 698. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2017;129:e134-41. *Obstetrics & Gynecology* [129\(5\):p e134-e141, May 2017.](#) | DOI: 10.1097/AOG.0000000000002044



Conference Co-Chair

Ass. Prof. Dr. Bengü DEPBOYLU

Faculty of Medicine,
Department of Radiation Oncology,
09100 Aydın,
TURKEY.

Topic: Treatment And Patient-Related Quality Of Life Issues in the Elderly and Very Elderly Breast Cancer Patients.

Abstract

Breast cancer is the most common cancer in women; almost half of the newly diagnosed patients are older than 65. With their peculiar characteristics, elderly breast cancer patients should undergo a comprehensive geriatric assessment. Choosing the correct treatment more delicately is vital to better predict the patient's prognosis and the associated risks of specific treatments. Treatment (surgery, radiation therapy, chemotherapy, and endocrine therapy) and patient-related (mental health, physical function, frailty, cognitive function, nutrition) quality-of-life issues among those aged 70 to 79, 80 and over are revisited in light of recent literature during this speech.

Body

Cancer of the female breast is one of the top three cancer types in incidence and ranked fifth in mortality. In developed countries, the chronological age of 65 is defined as "elderly" or "older person" (1). Breast International Group proposed an age of 70 if chronological age would be used to define the elderly population (2). Therefore, "elderly patients" are mostly referred to as 65 or 70 for the lower age limit; however, there is no described age for the upper limit for these patients. Recently, cancer and other chronic diseases (e.g., diabetes, cardiovascular conditions, pulmonary disease) are on the rise in patients older than 65 years of age, and they are reported to comprise almost 45% of newly diagnosed breast cancer cases (3). An average 65-year-old patient is expected to live 20 years more; likewise, a 75-year-old patient is substantially expected to live 12 years more (4). Previously, elderly breast cancer patients were underrepresented in clinical trials, but more specific trials are being tailored mainly to address them with localized and metastatic breast cancer (5-9). The clinicopathological features of breast cancer uniquely differ from its features in the younger population. The elderly patient's health status should be assessed using geriatric assessment tools to estimate life expectancy and mortality to provide oncologists with the ability to schedule an appropriate treatment that strikes a delicate balance in a patient's quality of life (10).

Tumor characteristics

In a recent review article by Lodi et al., clinicopathologic characteristics in elderly women showed a distinction between ages 70 to 79 and from 80 and over. Radiological cancer detection, small (T1) tumor size, lymph nodes, presence of metastases, ductal histologic subtype, histologically high (G3) tumor type, and lymphovascular invasion favored women aged 70 to 79. On the contrary, clinical cancer detection, larger (T2) tumor size T2, lymph node assessment and unknown status (Nx), lymph node metastasis with less NO, more N+, distant metastasis, mucinous and other histological type carcinomas, histological tumor grade I, less grade III, hormone-sensitive tumors with PR expression, less lymph vascular invasion were in favor of women aged 80 and over. Breast cancer mortality in the 70-79 years sub-group, overall survival at five years was inferior to the 80 and over sub-group due to the more frequent occurrence of tumors with the features above (16.1% vs. 53.5%, $P < 0.01$). Interestingly, in the 80 and over sub-group, breast cancer-specific mortality is increased at 5 and 10 years (25.8% vs. 17.2%, $P < 0.01$ and 32.7% vs. 26.6%, $P < 0.01$; respectively) (11).

Surgical treatment

Surgical resection is the milestone for women with early-stage breast cancer unless they refuse surgery, are not an appropriate candidate for surgery due to their comorbidities, and have a short life expectancy of less than three years. Breast-conserving procedures or mastectomy are options, with or without sentinel lymph node biopsy and/or axillary lymph node dissection. The EORTC 10850 trial showed that early breast cancer, mastectomy, and breast-conserving surgery are equally effective in survival. Women undergoing lumpectomy plus tamoxifen did not differ from those undergoing a mastectomy in terms of fatigue, emotional functioning, fear of recurrence, social support, physical functioning, and free time activities. Patients treated with mastectomy reported fewer arm problems ($P=0.04$) and better feeling of body image ($P=0.06$), but relations were statistically borderline. As better results were reported in QoL following conservative treatment, this modality can be utilized in elderly patients like their younger counterparts (12). The ACOSOG Z0011 (Alliance) Randomised Clinical Trial showed that among women with T1 or T2 invasive primary breast cancer, no palpable axillary adenopathy, and 1 or 2 sentinel lymph nodes containing metastases, 10-year overall survival for patients treated with sentinel lymph node dissection alone was non-inferior to overall survival for those treated with axillary lymph node dissection (13).

According to the current literature, age is not considered a significant risk for surgery in the elderly. Functional status is a better variable for postoperative complication prediction. The functional reserve of elderly cancer patients should be evaluated by The Preoperative Assessment of Cancer in the Elderly (PACE) before the planned surgical resection (14).

Radiation Therapy

Irradiation of the whole breast following breast-conserving surgery is controversial in elderly women. In the Clarke et al. meta-analysis, none of the included randomized trials showed a decrease in overall survival when whole-breast radiotherapy (WBRT) was omitted (15). The CALGB 9343 trial primarily focused on women 70 or older with clinical stage 1, ER-positive breast cancer. Locoregional recurrences were 1% for patients with WBRT and 4% for those without at a 5-year median follow-up. At 10-year median follow-up, LRRs were 2% and 10%, respectively, although no overall survival difference (breast-cancer-specific survival 98% vs. 96%; overall survival 67% vs. 66%) was observed (16,17). The effect of the omission of radiotherapy on quality of life is assessed by the PRIME I (Postoperative Radiotherapy in Minimum-Risk Elderly) study, which accrued 255 patients with T0-T2, N0, M0 axillary node-negative patients after breast-conserving surgery with clear margins. There were no significant differences in overall QoL between irradiated and non-irradiated patients during 15 months of follow-up. Radiotherapy had an adverse effect on breast symptoms and social functioning (18,19). PRIME II Study, which accrued 1,380 patients with T1-2 (≤ 3 cm), node-negative disease, showed a significant but modest reduction in local recurrence for women aged 65 years or older with early breast cancer five years after randomization (1.3% vs. 4.1%; $P=0.0002$). The potential effect of local relapse on QoL and psychological state in older patients should always be considered in the long term. QoL scores were not different in 5-year median follow-up, although patients mentioned hospital transport and accommodation problems as important matters (7).

In conclusion, WBRT following breast-conserving surgery can be systematically omitted in no specific subgroup. However, the decision should be based on factors such as the patient's logistics to the clinic and treatment preference (20). The lack of trials that investigate the benefits and risks of radiation therapy in women 80 years and over with hormone-negative tumors and/or advanced disease directs clinicians to consider factors that include life expectancy, general health, and functional status, the risk for local recurrence plus mortality risk from heart-related comorbidities while deciding for breast irradiation. In the elderly population, patients with a life expectancy of more than five years, those with large (5 cm) tumors, LN (+), or ER (-) hormone receptors may benefit most from radiation therapy.

Chemotherapy and endocrine therapy

In the SEER database study, with 41,390 cases aged 65 or over (stage I-III disease), only 4,500 (10.9%) were given adjuvant chemotherapy (aged 65-69, 21%; aged 70-74, 13%; aged 75-79, 8.6%; aged 80 or over, 2.4%). Node-positive and ER-negative patients had the most survival benefit, but node-positive and ER-positive patients had none (21). The risks and benefits of a chemotherapy regimen must be evaluated deliberately due to the increased potential risk for adverse effects.

The cardiotoxic side effects of anthracyclines are higher in the elderly. Older women may experience higher rates of febrile neutropenia with docetaxel and cyclophosphamide, but both are superior for disease-free survival and overall survival (22). In HER2 overexpressing tumors, chemotherapy plus trastuzumab combination is preferred. The SEER data show that elderly patients are less likely to complete 1-year standard trastuzumab treatment. Trastuzumab can be combined with docetaxel and carboplatin or paclitaxel in elderly patients as they can cope with such regimens better. In general, elderly breast cancer patients are less likely to undergo guideline-based treatments; thus, their survival decreases.

Nevertheless, studies have shown that elderly breast cancer patients can tolerate standard, even intensive, chemotherapies almost as well as younger patients (23,24). Almost 85% of women with breast cancer aged 80 years and over have ER-positive status, which brings a survival advantage even if the patient is unfit for surgery or adjuvant chemotherapy. Chemotherapy can benefit older patients aged 80 and over; clinicians should be alert for more frequent cardiac and thromboembolic toxicities (25,26). Endocrine therapy is integral to systemic therapies in suitable breast cancer patients in a neoadjuvant or adjuvant setting. Neoadjuvant endocrine therapy is an excellent alternative for frail patients with limited life expectancy or who refuse breast surgery. It can be a more practical option for luminal-A breast cancer patients, the predominant tumor type in the elderly. Aromatase inhibitors (AI) and selective estrogen receptor modulators (SERM) are utilized for these patients. Studies comparing the two types of agents showed that both have equal efficacy or AIs are superior. A 3-4 month treatment is necessary for an excellent clinical response (27-29). Adjuvant endocrine therapy should be considered in most postmenopausal women with early breast cancer, usually following surgery and radiation. AIs and tamoxifen can both be used in this setting. Age-independent superior efficacy of AIs is proven over tamoxifen. Therefore, healthy patients who finished five years with tamoxifen should be considered for extended adjuvant therapy with an AI (like letrozole) (8,30). Recently, the DATA, IDEAL, and NSABP B42 trials showed that extended adjuvant endocrine therapy with AIs beyond five years in postmenopausal women with early breast cancer reduces the occurrence of secondary breast tumors. However, it has little or no positive effect on survival without distant metastasis (31-34).

Endocrine therapy-related side effects should be delicately evaluated. Arthralgia, osteoporosis, vaginal dryness, dyspareunia, and loss of sexual interest are common side effects caused by two types of agents. However, vaginal bleeding or discharge, cold sweats, and thrombosis are reported more frequently with tamoxifen. Side effects of treatment may strongly impact a patient's quality of life. In case of poor management, they may even cause treatment discontinuation, thus worsening the outcome. The adverse effects and therapy-related risks may outweigh the expected benefits. The optimum endocrine therapy duration is unclear in women aged 80 and over. Its efficacy may be inferior to long-term therapy's risks and side effects. A shorter duration of therapy may be better in this patient population (35-37).

Patient-related quality of life issues

While treating elderly women with breast cancer, clinicians need to understand the patient's specific personal needs for medical treatment, values, and priorities for QoL. Efforts should be made for patients and family members to understand the possibilities for a cure, potential side effects of treatment, and the impact of their consequences on QoL. Declines are due to age in primary physiologic functions such as cardiovascular, renal, and hepatic functions. The hemopoietic reserve may negatively affect the patient's ability to endure surgery, cytotoxic therapy, and irradiation. In the same way, mental, emotional, and nutritional status, polypharmacy, and low-income family relations or social support can interfere with the effectiveness and tolerability of treatment, with negative results for outcome and survival (38).

Frailty is defined as "a clinical syndrome in which three or more of the following criteria are present: unintentional weight loss (5 kg in the past year), self-reported exhaustion, weakness (grip strength), slow walking speed, and low physical activity". Patients with at least two criteria mentioned above have a high risk for progression to frailty. Frail or pre-frail elderly patients at the beginning of breast cancer diagnosis have an increased risk for long-term worse physical function, reduced social roles, and more fatigue, depression, and sleep disturbances (38,39). A secondary analysis of CALGB 369901 recently proved that pre-frail and frail patients had elevated long-term all-cause and breast cancer-specific mortality. Other patient-related quality-of-life issues include accelerated cognitive decline and memory problems (40).

Cancer patients experience many changes in their emotional status and mental health during their treatment. Anxiety and depression are reported as the most prevalent mental health pathologies among this patient population. Emotional support is vital for mental wellbeing. Puigpinós-Riera et al. reported that patients with low emotional support were at greater risk for anxiety and depression. The literature lacks information on the outcomes according to age differences (41). Malnutrition in the elderly is associated with functional dependence, decreased cognitive function, and depression. A healthy diet rich in fruits, vegetables, and whole grains, with less animal fat, protects against the risk of breast cancer recurrence and other chronic conditions.

Conclusion

Breast cancer risk rises with age; almost half of the women diagnosed with breast cancer are 65 years and over. However, there is no consensus for standard therapy for this patient population, and they are either likely to have less treatment or discontinue the standard treatments. Elderly patients should be handled with comprehensive geriatric assessment tools and a multidisciplinary approach. For fit elderly patients, standard treatments should be offered irrespective of age. Clinicopathologic features of breast cancers in the elderly distinguish between women aged 65 and over and women aged 80 and over. While offering treatment choices, efforts should be made for patients and family members to understand the possibilities for a cure, potential side effects of treatment, and the impact of their consequences on quality of life.

References

1. World Health Organization (2016) Definition of an older or elderly person. Available online: <https://www.who.int/healthinfo/survey/ageingdefnolder/en/>
2. Biganzoli L, Goldhirsch A, Straehle C, et al. Adjuvant chemotherapy in elderly patients with breast cancer: a survey of the Breast International Group (BIG) Ann Oncol 2004; 15:207-10.
3. American Cancer Organization. Available online: [https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2019/Estimated Number of New Cases for the Four Major Cancers by Sex and Age Group](https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2019/Estimated%20Number%20of%20New%20Cases%20for%20the%20Four%20Major%20Cancers%20by%20Sex%20and%20Age%20Group)
4. Muss HB. Coming of Age: Breast Cancer in Seniors. Oncologist 2011;16:79-87.
5. Hutchins LF, Unger JM, Crowley JJ, et al. Underrepresentation of patients 65 years of age or older in cancer-treatment trials. N Engl J Med 1999;341:2061-7.
6. Early Breast Cancer Trialists' Collaborative Group (EBCTCG). Effects of chemotherapy and hormonal therapy for early breast cancer on recurrence and 15-year survival: an overview of the randomized trials. Lancet 2005;365:1687-717.
7. Kunkler IH, Williams LJ, Jack WJ, et al. Breast-conserving surgery with or without irradiation in women aged 65 years or older with early breast cancer (PRIME II): a randomized controlled trial. Lancet Oncol 2015;16:266-73.
8. Crivellari D, Sun Z, Coates AS, et al. Letrozole compared with tamoxifen for elderly patients with endocrine-responsive early breast cancer: the BIG 1-98 trial. J Clin Oncol 2008;26:1972-9.
9. Untch M, Gelber RD, Jackisch C, et al. Estimating the magnitude of trastuzumab effects within patient subgroups in the HERA trial. Ann Oncol 2008;19:1090-6.
10. Diab SG, Elledge RM, Clark GM. Tumor characteristics and clinical outcome of elderly women with breast cancer. J Natl Cancer Inst 2000;92:550-6.
11. Lodi M, Scheer L, Reix N, et al. Breast cancer in elderly women and altered clinic-pathological characteristics: a systematic review. Breast Cancer Res Treat 2017;166:657-68.
12. de Haes JC, Curran D, Aaronson NK, et al. Quality of life in breast cancer patients aged over 70 years, participating in the EORTC 10850 randomized clinical trial. Eur J Cancer 2003;39:945-51.
13. Giuliano AE, Ballman KV, McCall L, et al. Effect of axillary dissection vs no axillary dissection on 10-year overall survival among women with invasive breast cancer and sentinel node metastasis: the ACOSOG Z0011 (Alliance) randomized clinical trial. JAMA 2017;318:918-26.
14. Ramesh HS, Boase T, Audisio RA. Risk assessment for cancer surgery in elderly patients. Clin Interv Aging 2006;1:221-7.
15. Clarke M, Collins R, Darby S, et al. Effects of radiotherapy and of differences in the extent of surgery for early breast cancer on local recurrence and 15-year survival: an overview of the randomized trials. Lancet 2005;366:2087-106.
16. Hughes KS, Schnaper LA, Berry D, et al. Lumpectomy plus tamoxifen with or without irradiation in women aged 70 or older with early breast cancer. N Engl J Med 2004;351:971-7.

17. Hughes KS, Schnaper LA, Bellon JR, et al. Lumpectomy plus tamoxifen with or without irradiation in women age 70 years or older with early breast cancer: long-term follow-up of CALGB 9343. *J Clin Oncol* 2013;31:2382-7.
18. Prescott RJ, Kunkler IH, Williams LJ, et al. A randomized controlled trial of postoperative radiotherapy following breast-conserving surgery in a minimum-risk older population. The PRIME trial. *Health Technol Assess* 2007;11:1-149, iii-iv.
19. Williams LJ, Kunkler IH, King CC, et al. A randomized controlled trial of postoperative radiotherapy following breast-conserving surgery in a minimum-risk population. Quality of life at 5 years in the PRIME trial. *Health Technol Assess* 2011;15:i-xi, 1-57.
20. Biganzoli L, Wildiers H, Oakman C, et al. Management of elderly patients with breast cancer: updated recommendations of the International Society of Geriatric Oncology (SIOG) and European Society of Breast Cancer Specialists (EUSOMA). *Lancet Oncol* 2012;13:e148-60.
21. Giordano SH, Hortobagyi GN, Kau SW, et al. Breast cancer treatment guidelines in older women. *J Clin Oncol* 2005;23:783-91.
22. Jones S, Holmes FA, O'Shaughnessy J, et al. Docetaxel with cyclophosphamide is associated with an overall survival benefit compared with doxorubicin and cyclophosphamide: 7-year follow up of U.S. Oncology Research Trial 9735. *J Clin Oncol* 2009;27:1177-83.
23. Vaz-Luis I, Keating N, Lin N, et al. Duration and toxicity of trastuzumab in older patients with early stage breast cancer: A population-based study. *J Clin Oncol* 2014;32:927-34.
24. Muss HB, Woolf S, Berry D, et al. Adjuvant chemotherapy in older and younger women with lymph node-positive breast cancer. *JAMA* 2005; 293:1073-81.
25. Schonberg MA, Marcantonio ER, Li D, et al. Breast cancer among the oldest old: tumor characteristics, treatment choices, and survival. *J Clin Oncol* 2010;28: 2038-45.
26. Chatzidaki P, Mellos C, Briese V, et al. Does primary breast cancer in older women (≥ 80 years) have unfavorable histological characteristics? *Arch Gynecol Obstet* 2011;284:705-12.
27. Smith IE, Dowsett M, Ebbs SR, et al. Neoadjuvant treatment of postmenopausal breast cancer with anastrozole, tamoxifen, or both in combination: the Immediate Preoperative Anastrozole, Tamoxifen, or Combined with Tamoxifen (IMPACT) multicenter double-blind randomized trial. *J Clin Oncol* 2005;23:5108-16.
28. Masuda N, Sagara Y, Kinoshita T, et al. Neoadjuvant anastrozole versus tamoxifen in patients receiving goserelin for premenopausal breast cancer (STAGE): a double-blind, randomized phase 3 trial. *Lancet Oncol* 2012;13:345-52.
29. Amoroso V, Generali D, Buchholz T, et al. International Expert Consensus on Primary Systemic Therapy in the Management of Early Breast Cancer: Highlights of the Fifth Symposium on Primary Systemic Therapy in the Management of Operable Breast Cancer, Cremona, Italy (2013). *J Natl Cancer Inst Monogr* 2015;2015:90-6.
30. Muss HB, Tu D, Ingle JN, et al. Efficacy, toxicity, and quality of life in older women with early-stage breast cancer treated with letrozole or placebo after 5 years of tamoxifen: NCIC CTG intergroup trial MA.17. *J Clin Oncol* 2008;26:1956-64.
31. Tjan-Heijnen VCG, van Hellemond IEG, Peer PGM, et al. Dutch Breast Cancer Research Group for the DI Extended adjuvant aromatase inhibition after sequential endocrine therapy (DATA): a randomized, phase 3 trial. *Lancet Oncol* 2017;18:1502-11.
32. Blok EJ, Kroep JR, Meershoek-Klein Kranenbarg E, et al. Group IS Optimal Duration of Extended Adjuvant Endocrine Therapy for Early Breast Cancer; Results of the IDEAL Trial (BOOG 2006-05). *J Natl Cancer Inst* 2018; 110:40-8.
33. Mamounas EP, Bandos H, Lembersky BC, et al. A randomized, double-blinded, placebo-controlled clinical trial of extended adjuvant endocrine therapy (tx) with letrozole (L) in postmenopausal women with hormone-receptor (+) breast cancer (BC) who have completed previous adjuvant tx with an aromatase inhibitor (AI): results from NRG Oncology/NSABP B-42. In: Presented at: 2016 San Antonio Breast Cancer Symposium; December 6-10; San Antonio, TX, 2016.
34. van Hellemond IEG, Geurts SME, Tjan-Heijnen VCG. Current Status of Extended Adjuvant Endocrine Therapy in Early Stage Breast Cancer. *Curr Treat Options Oncol* 2018;19:26.
35. van Nes JG, Fontein DB, Hille ET, et al. Quality of life in relation to tamoxifen or exemestane treatment in postmenopausal breast cancer patients: a Tamoxifen Exemestane Adjuvant Multinational (TEAM) Trial side study. *Breast Cancer Res Treat* 2012;134:267-76.
36. Cella D, Fallowfield L, Barker P, et al. Quality of life of postmenopausal women in the ATAC ("Arimidex," tamoxifen, alone or in combination) trial after completion of 5 years' adjuvant treatment for early breast cancer. *Breast Cancer Res Treat* 2006;100:273-84.
37. Glaser R, Marinopoulos S, Dimitrakakis C. Breast cancer treatment in women over the age of 80: a tailored approach. *Maturitas* 2018;110:29-32.
38. Coughlin SS, Paxton RJ, Moore N et al. Survivorship issues in older breast cancer survivors. *Breast Cancer Res Treat.* 2019;174:47-53.
39. Fried LP, Tangen CM, Walston J, et al. Frailty in older adults: evidence for a phenotype. *J Gerontol A Biol Sci Med Sci* 2001;56:M146-56.
40. Mandelblatt JS, Cai L, Luta G, et al. Frailty and long-term mortality of older breast cancer patients: CALGB 369901 (Alliance). *Breast Cancer Res Treat* 2017;164:107-17.
41. Puigpinós-Riera R, Graells-Sans A, Serral G, et al. Anxiety and depression in women with breast cancer: Social and clinical determinants and influence of the social network and social support (DAMA cohort). *Cancer Epidemiol* 2018;55:123-9.



Prof. Amira Youssef Ahmed

Professor of Clinical Pathology (Medical biochemistry , hematology and molecular genetics)

Faculty of Medicine, Tanta University,
Tanta, Gharbia, Egypt.

Topic: The Impact of SKP2 Gene Expression in Chronic Myeloid Leukemia.

Co- Author: Hossam Hodeib

Abstract

The prognosis of chronic myeloid leukemia (CML) patients has been dramatically improved with the introduction of imatinib (IM), the first tyrosine kinase inhibitor (TKI). TKI resistance is a serious problem in IM-based therapy. The human S-phase kinase-associated protein 2 (SKP2) gene may play an essential role in the genesis and progression of CML. Aim: We try to explore the diagnostic/prognostic impact of SKP2 gene expression to predict treatment response in first-line IM-treated CML patients at an early response stage. Methodology: The gene expression and protein levels of SKP2 were determined using quantitative RT-PCR and ELISA in 100 newly diagnosed CML patients and 100 healthy subjects. Results: SKP2 gene expression and SKP2 protein levels were significantly upregulated in CML patients compared to the control group. The receiver operating characteristic (ROC) analysis for the SKP2 gene expression level, which differentiated the CML patients from the healthy subjects, yielded a sensitivity of 86.0% and a specificity of 82.0%, with an area under the curve (AUC) of 0.958 ($p < 0.001$). The ROC analysis for the SKP2 gene expression level, which differentiated optimally from the warning/failure responses, yielded a sensitivity of 70.59% and a specificity of 71.21%, with an AUC of 0.815 ($p < 0.001$). Conclusions: The SKP2 gene could be an additional diagnostic and an independent prognostic marker for predicting treatment responses in first-line IM-treated CML patients at an early time point (3 months).

Short Biography:

Prof. Amira Youssef Ahmed

Professor of clinical pathology (Medical biochemistry , hematology and molecular genetics) Faculty of Medicine, Tanta University From November 2022 until now -Fields of Interest:

Hematology, Molecular cytogenetic, Tissue culture and Stem cells

Details of my practice:

- Hematology lectures for under and post graduate students.

Working in Cytogenetics Unit (Karyotyping and FISH).

Working in separation of stem cells and its medical application (leg ulcer, leg ischemia ,liver cirrhosis ,Alopecia and COPD.

- Working in separation of stem cells from umbilical cord

Special activities:

* Actively Participated as in karyotyping workshops

* Actively Participated in FISH workshop

* Contributed to the organizing committee of The Center of Excellence in Cancer Research (CECR) "Next Generation Cancer Research And Diagnosis

* One of the team working on clinical trials on the utility of stem cells transplantation in treatment of chronic leg ulcer and chronic leg ischemia And for treatment of end stage liver disease and treatment of chronic obstructive lung disease.

* Director of Elhadaf Lab (The economic Lab of Tanta University Hospital).



Dr. Karez Namiq

Medical Oncologist/MSc, Iraq.

Certified Oncology Nutrition Consultant

ESO certificate of competence in Breast Cancer - fourth cohort (CCB4)

ESCO graduate at the college of the European school of Oncology

The ESO winner of the Mastermind quiz 2020

Topic: Neoadjuvant Therapy in Non-Metastatic Breast Cancer in Kurdistan, Iraq.

Co- Author: Luqman Sulaiman

Abstract

Background: Breast cancer is the most common cancer in women. Locally advanced breast cancer (LABC) is defined as inoperable breast adenocarcinoma without distant metastases. Patients with LABC require a multidisciplinary approach. Its core management includes surgical removal of the tumor either by breast conserving surgery (BCS) or mastectomy, and there is a great variability in surgical practice for treating that cancer in different countries. Neoadjuvant chemotherapy has been the standard treatment for locally advanced breast cancer for the purpose of downstaging or for conversion from mastectomy to BCS.

Goals: This study aimed to assess the treatment approach for nonmetastatic breast cancer in the Kurdistan region of Iraq and to compare its alignment with the current international recommendations for cancer treatment.

Methods: We retrospectively reviewed the records of 1000 eligible patients who underwent either breast-conserving surgery or mastectomy for non-metastatic invasive breast cancer at oncology centers located in the Kurdistan region of Iraq between the period 2016– 2021.

Results: Out Of 1000 patients (median age, 47 years (range, 22–85 years)), 60.2% underwent a mastectomy and 39.8% underwent breast conserving surgery. The proportion of patients treated with neoadjuvant chemotherapy has increased over time, with 8.3% of patients receiving neoadjuvant treatment in 2016 compared to 14.2% in 2021. Similarly, breastconserving surgery has risen from 36.3% in 2016 to 43.7% in 2021. Most patients who underwent breast-conserving surgery had early breast cancer with a low nodal involvement burden.

Conclusion(s): The increasing trends of breast-conserving surgery practice in locally advanced breast cancer along with the increased use of neoadjuvant chemotherapy in the Kurdistan region in recent years comply with international guidelines. Our large multicenter, real-life series emphasizes the urgent need to implement and discuss more conservative surgical approaches, enhanced with the broader use of neoadjuvant chemotherapy, through education and information programs for health providers and patients, in the context of multidisciplinary team discussions, to deliver high-quality, patient centric breast cancer care.



Dr. Michelle Chishamiso

Founder of the Talk Cancer Zim Trust,
Senior Radiation Therapist and Medical Dosimetry,
Parirenyatwa Radiotherapy and Oncology Department,
Zimbabwe.

Topic: A Dosimetric comparison of four three dimensional conformal Radiation therapy techniques for Prostate Cancer, a planning study at Parirenyatwa Hospital.

ABSTRACT

OBJECTIVE: To compare the dosimetric coverage of the Planning Target Volume and dose delivered to the Organs at risk in 3, 4, 5, and 6 field techniques of 3DCRT in patients with localized prostate cancer. The purpose of the research is to determine the most effective technique for sparing the rectum, bladder and femoral head while keeping adequate dose coverage of the PTV.

METHOD: 24 patients with prostate cancer already treated using 4 field technique underwent 3, 5 and 6 field planning. Plans were generated on eclipse Treatment planning system using AAA algorithm and at machine energy 6MV or 10MV. The PTV was defined as prostate gland with 10mm margins around Clinical Target Volume. CTV is prostate gland except for the posterior margin (prostate gland anterior part where the rectum wall where 5mm margin is applied). For each patient OAR were outlined, rectum, bladder, right femoral head. The following plans were made with beam angle orientations 3 field (0, 120, 240) 6 field (45, 90, 135, 225, 270, 315) 5 field (0, 90, 110, 250, 270,) and compared with the already existing 4 field (0,90,180,270). All dosimetric parameters were appraised qualitatively and quantitatively using standard dose volume coverage, homogeneity and conformity. PTV coverage was evaluated with D min, D mean and D max dose to PTV. Dose homogeneity was assessed using Homogeneity Index and conformation of the PTV coverage was estimated using the Conformity Index. Normal tissue avoidance of OAR (bladder, femur, rectum) was evaluated with V50, V70 for rectum, V50, V70 for bladder, V50 for femur.

RESULTS: ANOVA statistical methods were used to verify the significance of difference between the treatment plans and all 4 plans differed slightly in measured parameters and none of them have statistically significant differences.

CONCLUSION: In comparison to 4 field technique, the 5 and 6 field techniques has resulted in improved dose conformity and heterogeneity, however the difference was not very statistically significant. The 3 field technique provides the best rectal sparing and none of the techniques has shown significant differences in bladder protection.



Dr. Achouak Reziq

Radiologist at Mustapha University Hospital in Algiers, Algeria.

Topic: MRI in Cervical cancer: What to see?

ABSTRACT

Cervical cancer is one of the leading cancer killers among women all over the world, particularly among females in developing countries. HPV [Human Papilloma Virus 6 and 8] is a sexual transmitted virus mainly implicated in cervical cancer pathogenesis.

A silent cancer for long time, discovered frequently among females on peri menopause. Menorrhagia or metrorrhagia are the main two revealing symptoms. This cancer is preventable nowadays thanks to vaccination.

MRI plays important roles cervical cancer assessment, from detection to recurrent disease evaluation.

We are going to present an organized review to assess the knowledge necessary in screening cervical masses, and structure MRI reports to furnish the main data conditioning the therapeutic choice.

Key words: MRI, Cervix cancer , Menopause, pelvic floor, cervical axis, Figo , pelvic invasion.



Dr. Priscilla Goretti

Oncology Nutritionist
WeCancer,
Brazil.

Topic: Nutritional status, mobility and quality of life of children and adolescents with Cancer?
Co- Authors: Paula Chagas; Raiane Marques.

ABSTRACT

The treatment of childhood cancer is complex and includes several stages and forms of treatment, isolated or combined, which can negatively impact the anthropometric parameters, mobility, food consumption and quality of life. Observational, cross-sectional study with a total of 45 participants, 15 from the cancer group and 30 from the control group. Anthropometric parameters were used (arm circumference, calf circumference-CC, triceps skinfold and arm muscle circumference), handgrip strength, mobility test (Timed Up and Go-TUG) and the Pediatric Quality of Life Inventory-PedsQL; Physical Activity Questionnaire for Adolescents-PAQ- A and Children-PAQ-C and 3-Day Food Record.

BIOGRAPHY:

Priscilla Goretti is a *oncology nutritionist graduated in Nutrition from Universidade Federal de Juiz de Fora, *pos-graduated in Oncology from Albert Einstein Institute, *Master in Rehabilitation Sciences and Functional Physical Performance. Priscilla Goretti works as a oncology nutritionist in 'WeCancer', a startup which gives care to who needs, specially women in social-economics situation, without health assistance.



Dr. Elvina Almuradova MD

Ege University Faculty of Medicine
Department of Medical Oncology, Izmir, Turkey.
Medical Oncologist
IMedicana Hospital, Turkey

Topic: Survival Metastatic Rectum Cancer Patients Who Underwent Metastasectomy Following Conversion Chemotherapy, But Not Received Pelvic Radiotherapy: a TOG (Turkish Oncology Group) study.

Co Authours: – Suayib Yalcin M.D, Rukiye Arikan M.D, Murat Ayhan MD, Hacer Demir M.D, Gokcen Tugba Cevik M.D, Mustafa Karaca M.D, Ibrahim Petekkaya M.D, Bulent Karabulut M.D.

ABSTRACT

Background: The management of early rectal cancer is different from colon cancer in terms of radiotherapy requirement or neoadjuvant treatment. It is not clear how the course of rectal cancer differs from the colon in metastatic setting and how different it should be approached. The aim of this study was to evaluate outcome after combining downsizing chemotherapy and rescue surgery.

Methods: Eighty-nine patients (57 men and 32 women) diagnosed with metastatic rectal cancer who have the resectable disease after systemic chemotherapy were included in the study. All patients underwent surgery for the primary mass and metastasis, but none of these patients received 3 radiation therapy before or after surgery. Survival curves for OS and RFS generated using the Kaplan-Meier method and compared with the log-rank test for subgroups.

Results: Median follow-up time was 28.8 (17.6-39.4) months. During the follow-up, 54 (60.7%) patients died and 78 (87.6%) patients had an RFS event. Cancer relapsed in 72 (80.9%) patients. Median OS was 35.2 (95% CI: 28.5-41.8) months and median RFS was 17.7 (95% CI: 14.4-21) months. The 5-year OS and RFS were 19% and 3.5%, respectively. Male sex ($p=0.04$) and better Mandard score ($p=0.021$) were associated with longer OS, while obesity was associated with shorter RFS ($p<0.001$).

Conclusion: In conclusion, patients with initially unresectable rectum cancer downstaged by chemotherapy and resected had shorter survival than colon cancer patients. The distant recurrence is the most common type of recurrence in metastatic rectal cancer patients who underwent resection for their metastasis and/or primary tumor after systemic chemotherapy, radiotherapy to prevent local recurrences in this term is unknown.



Elshema Tageldin Mohamed Ali

Senior Physiotherapy Team Leader,
Czech Rehabilitation Hospital,
Alain city, UAE.

Topic: Physiotherapy in breast cancer survivors, A new hope.

Co-Authours: Dr. Nellie shuri Boma, Dr. Ikbal Majed.

ABSTRACT

Breast cancer is a devastating disease that affects millions of women worldwide. While treatments such as surgery, chemotherapy, and radiation can be effective in eradicating the cancer, they often leave survivors with physical and emotional scars that can last a lifetime. This is where oncology rehabilitation comes in - a specialized form of physiotherapy that focuses on improving the quality of life for breast cancer survivors.

Importance of Rehabilitation in breast cancer patients: Oncology rehabilitation can help survivors regain physical function, reduce pain, and manage the emotional and psychological effects of cancer treatment. Only then survivors can improve their quality of life and return to their pre-cancer level of function.

Methods: APTA (American physiotherapy association) Advocates the use of the ICF(International Classification Of function) scheme is used to describe overall function of populations who have specific (chronic health condition such as breast cancer).

Common outcomes measure used in oncology rehabilitation:

The Functional Assessment of cancer therapy Breast (FACT –B)

The Upper Limb Lymphedema Questionnaire (ULLQ)

Disability of The ARM ,Shoulder and Hand (DASH)

Karnofsky performance scale.

Physiotherapy Treatment Goals:

Patient Education/Instruction in self care, home exercise/activity program, protective techniques etc.

Functional Training in self care, job related, and social activities including the use of assistive technologies and devices.

Therapeutic Exercise to increase endurance/activity tolerance, muscle strength and control

Manual Therapy Techniques to decrease edema, pain, spasm, and/or to increase the ability to move.

Motor Function Training including balance, gait, mobility and the use of assistive technologies and devices.

Biophysical Agents/Modalities to reduce pain and swelling and/or to enhance muscle performance/strength.

Biophysical Modalities

Thermal modalities

Ultrasound

Laser therapy

Electrical stimulation

Lymphedema management:

Lymphedema Treatment COMPLETE DECONGESTIVE THERAPY (CDT) is the combination of treatment which reduces lymphedema volume.

PHASE 1: DECONGESTION PHASE OF CDT

1. Compression bandaging
2. Decongestive exercises & movement
3. Manual Lymphatic drainage (MLD)
4. Skin care

PHASE 2: MAINTENANCE PHASE

1. Compression garment
2. Exercises & movement
3. Weight reduction and/or management
4. Self lymphatic drainage (MLD)
5. Skin care
6. Self-monitoring

In Conclusion : Oncology rehabilitation is an essential component of breast cancer survivor care. By addressing physical and emotional issues related to cancer treatment, survivors can improve their quality of life and return to their pre-cancer level of function.

By providing personalized care and support, they can help breast cancer survivors overcome the challenges of cancer treatment and live full and active lives.

References :

- Van Kampen, 2000; Filocamo, 2005; Overgard, 2008
Bernard S et al: S J Cancer Surviv (2016) 10(2)351-362.
Dumoulin C, Hay-Smith EJ, Mac Habée-Séguin G: Cochrane Data Base Syst Rev (2014) May 14(5).
Yang EJ et al: Gynecol Oncol (2012) 125(3) 705-711.
Carl, H. M., Walia, G., Bello, R., Clarke-Pearson, E., Hassanein, A. H., Cho, B., . . . Sacks, J. M. (2017). Systematic Review of the Surgical Treatment of Extremity Lymphedema. J. Reconstr. Microsurg. Journal of Reconstructive Microsurgery, 33(6), 412-42.

About Authour:**Education & Credentials:**

- Bachelors Honour degree in physiotherapy Ahfad university /Sudan .
Diploma in Orthopaedic Manual therapy /UK.
Dry needling Diploma Certificate /UK.
Myofascial Cupping practitioners Diploma /UK.
Diploma in Oncology Rehabilitation Certificate / US .
Oncology Rehabilitation Certificate /Canada .
Complex decongestive therapy Certificate UK.
Aquatic therapy certificate/ US .
Neurological Rehabilitation Certificate /UK.
Advance Female pelvic floor program US / Canada .
Mulligan Technique Level A and B / Denmark .



Asmaa El mrini

Oncology Nurse - 12 Years,
Clinical Trails Nurse - 8 Years,
MA advanced practice in Oncology and Palliative care,
Morocco.

Topic: Clinical Trials and the Role of the Oncology Clinical Trials Nurse in Africa Moroccan experience.

ABSTRACT

Today's standard of care was yesterday's clinical trial. Oncology clinical trials have been and will continue to be the cornerstone for improving outcomes for individuals at risk for and living with cancer. A clinical trial is a type of patient-oriented clinical research study which prospectively assigns a participant, also known as a human subject, to one or more biomedical or behavioral interventions to evaluate health-related outcomes. Discovering these new interventions and developing, implementing, and monitoring a clinical trial involves many groups and individuals. Collectively their responsibility is to ensure that the rights and well-being of the research participants are protected and to advance scientific knowledge by ensuring that data generated by the trial is accurate, verifiable, and reproducible. A key role in successful implementation of a clinical trial is the study nurse.

Nowadays, in Morocco the role is a little vague is not clear enough in the exercise of profession is general the nurse of the clinical trials stemming from service of care practices at the same time the clean care to the service of the hospitalized patients as well as the administration the monitoring of the cytotoxic within the framework of the trials and the coordination of these last in a multidisciplinary team.

For me it is an attempt to clarify the role of the nurse in clinical trials that is after 8 years of practice remains an innovative role and at the same time difficult without a legislative framework that protects us in North Africa exactly in Morocco.



Dr. Rahmatullah Athar

Research Fellowship in Gastrointestinal Cancer Surgery,
Iran University of Medical Sciences,
Center of Excellence of European Branch of International Federation for
Surgery of Obesity, Rasool-E Akram Hospital, Tehran, Iran.

Topic: Total Gastrectomy for Gastric Cancer Treatment after Single Anastomosis Sleeve - Jejunum Bypass.

Co-Authors: Alireza Khalaj, Rahmatullah Athar, Fahime Yarigholi, Shahab Shahabi

ABSTRACT

With increasing the prevalence of severe obesity worldwide, there are different bariatric surgery methods that is performing according to the patients' characteristics and associated medical problems. Obesity is a significant risk factor for cancer incidence and mortality. The number of patients with obesity who undergone bariatric surgery is increasing; however, the impact of bariatric surgical procedures on the risk of cancer is not completely understood yet. The association between obesity and malignancies has been identified epidemiologically. Obesity is more prevalent in women than men in most countries. Unfortunately, nonspecific presentations and difficulties regarding investigations make diagnosis challenging. A 62-year-old female with an initial BMI of 44.2 kg/m² were undergone SASJ, 6 years ago, in another center. The upper gastrointestinal endoscopy before SASJ operation showed reflux esophagitis grade A and erosive erythematous hyperemic mucosa gastritis. There was no pathological examination. However, the patient received adequate weight loss for 5 years' post-operative, she continued to weight loss during past one year and had a BMI of 21kg/m² at the time of admission. According to the patients complains of heart burn, anorexia, nausea and vomiting she underwent an endoscopy that reported active and focally ulcerative mucosa in antrum with some atypical cells with signet ring type adenocarcinoma and chronic inflammatory responses in pathologic assessment. Metastasis work-up were negative and laboratory findings was normal. Laparoscopic total gastrectomy and Roux-en Y esophagojejunostomy with 75cm BPL and 75cm alimentary limb were performed. There were no intraoperative or postoperative complications. The patient had an uneventful postoperative course and was discharged on postoperative day 8.

Recent Publications (minimum 5)

1. Pazouki A, Kermansaravi M. Single Anastomosis Sleeve-Jejunal Bypass: a New Method of Bariatric/Metabolic Surgery. *Obesity Surgery*. 2019;29(11):3769-70.
2. Rezaei MT, Sheikhabaei E, Zefreh H, Allami M, Sayadi Shahraki M, Shahabi S. Single-anastomosis Sleeve Jejunum: a Mid-term Follow-up Report of a New Surgical Technique. *Obesity Surgery*. 2023.
3. Brito H, Santos AC, Preto J, Carvalho D, Freitas P, Group C. Obesity and Cancer: the Profile of a Population who Underwent Bariatric Surgery. *Obesity Surgery*. 2021;31(11):4682-91.
4. Ebrahimi R, Kermansaravi M, Khalaj A, Eghbali F, Mousavi A, Pazouki A. Gastro-Intestinal Tract Cancers Following Bariatric Surgery: a Narrative Review. *Obesity Surgery*. 2019;29(8):2678-94.



Dr. Zahra Rezaei Borojerdi

Hematology & Medical Oncology fellowship,
Stem cell transplantation fellowship,
Iran.

Topic: Efficacy of Hyper CVAD plus Rituximab on one-year and three year Survival Rate of Patients with Acute Lymphoblastic Leukemia (B ALL) compared to Hyper CVAD Regimen in Iranian patients: a Non-randomized Clinical Trial .

Co- Authors: Abolghasem Allahyari, Zahra Mozaheb, Alireza Bari, SeyyedeH Tahereh Mohades

ABSTRACT

Introduction: Acute lymphoblastic leukemia (ALL) accounts for less than 1% of all adult cancers and 25% of cancers in children. As a result of low yielding treatments, the need for high-efficacy drugs is of great importance.

Materials and Methods: This is a non-randomized clinical trial with an historical control group made up of all the individuals diagnosed with B-cell ALL CD20 + under treatment with Hyper CVAD regimen in Iranian patients between March 2009 and March 2021. Furthermore, all the patients referred to Hematology-Oncology Departments of Ghaem Hospital and Imam Reza Hospital in 2016 were placed in the intervention group and treated with the Hyper CVAD plus Rituximab regimen according to the treatment protocol of the control group.

Results: 54 people were included in this study in two groups of control (34 people) and intervention (20 people). There was no significant difference between the intervention and control groups and also the age and sex groups in terms of the survival rate (P value = 0.968). Laboratory characteristics such as mean platelet count, neutrophils, lymphocytes and MCV and MCH of individuals were significantly different during follow-up periods in the study (P value <0.01). In this study, the overall survival of patients receiving hyper-CVAD treatment decreased by about 2.9 compared to R-hyper-CVAD treatment ($P <0.05$). Although there was no statistically significant relationship between the survival rate of the two age groups (less than or equal to 30 and more than 30 years) ($P > 0.05$), but the mortality rate in patients who received the Hyper-CVAD was higher than R-hyper CVAD.

Conclusions: This study first study in Iran aimed to compare R Hyper CVAD regimen to conventional Hyper CVAD regimen in B ALL patients. The evidence from this study showed that there is a significant relationship between survival and recovery from B cell -ALL leukemia in the intervention (treated with Hyper CVAD + Rituximab) and control (treated with Hyper CVAD). Therefore, adding Rituximab to chemotherapy can significantly improve B-cell-all patients.

wowcongress.com/oncology
oncology@wowcongress.com

**WE WISH TO SEE
YOU AGAIN**

2ND EDITION

WOMEN IN ONCOLOGY

GLOBAL CONFERENCE & AWARDS

FEBRUARY 24-25, 2024

GRAND EXCELSIOR HOTEL, DUBAI.

HYBRID CONFERENCE: IN-PERSON & VIRTUAL



ORGANIZED BY
WOWCONGRESS