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INNOVATION

IN A RAPIDLY CHANGING LANDSCAPE

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ABSTRACT BOOK

Methods: All survivors aged ≥18 years at treatment with HDT-ASCT for lymphoma in Norway 1987-2008 were eligible for this cross-sectional survey performed in 2012-2014. In the period 1987-1995 the high dose regimen consisted of total body irradiation and high dose cyclophosphamide, and from 1996 of chemotherapy only (carmustine, etoposide, cytarabine and melphalan). Participants responded to a questionnaire assessing fatigue, mental distress, neuroticism and level of physical activity, and were invited to an out-patient clinical examination including blood sampling, echocardiography and exercise capacity (V02peak). Fatigue was assessed by the Fatigue Questionnaire and CF defined as substantial fatigue for ≥6 months. Univariate and multivariate logistic regression analyses were performed with CF as the dependent variable. P≤0.05 were considered significant.

Results: Of 399 eligible survivors, 311 completed the questionnaire and 271 attended the out-patient examination. Among the 311 participants, 187 were men. The mean age was 42, 44 and 55 years at diagnosis, HDT-ASCT and survey, respectively. Median observation time from diagnosis was 12 years. The prevalence of CF was 31%. In univariate analyses mediastinal radiotherapy, obesity, neuroticism and increased mental distress were associated with increased risk for CF ($p<0.05$), whereas higher V02peak and meeting WHO guidelines for physical activity were associated with reduced risk for CF ($p≤0.01$). In multivariate analysis, neuroticism was associated with increased risk of CF (OR=1.52,p=0.001), while meeting WHO guidelines for physical activity was associated with lower risk (OR=0.31,p=0.006).

Conclusion/Implications: CF is prevalent in lymphoma survivors after HDT-ASCT and associated with psychological and lifestyle factors. The latter can be targets for interventions.

A-55. Group Acupuncture Appointments for Breast Cancer-Related Symptoms: A Retrospective Review

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Introduction: Group Acupuncture is an economically prudent way to provide acupuncture treatments to cancer patients. Evidence to support the use of group acupuncture for cancer-related symptoms is lacking. In this retrospective study, we evaluated the effect of group acupuncture on cancer related symptoms in breast cancer patients during the first year of availability at the Levine Cancer Institute. Patient satisfaction was also evaluated.

Methods: Retrospective analysis for self-reported symptoms of pain, neuropathy, hot flashes, anxiety, sleep problems and fatigue for patients receiving group acupuncture by a licensed acupuncturist. At the conclusion of their first group appointment, each patient completed a satisfaction survey. Prior to every treatment, patients completed a short symptom questionnaire and rated symptoms on a scale from 1-10. Adverse events were graded using the CTCAE v 3.0. An Independent Samples T-Test was used to compare Baseline to Session 4 and Baseline to Session 8.

Results: Of the patients who received at least 4 acupuncture treatments in 6 weeks (n=71), significant improvement in symptoms after just 3 treatments was seen in sleep (p<.018), hot flashes (p<.001), anxiety (p<.014), fatigue (p<.01) (symptom questionnaire was completed before treatment given). No significant improvement was seen in pain and neuropathy. Of those patients who completed 8 treatments within 12 weeks (n=30), no improvements were significant between session 1 and 8. There were 2 (Grade 1) bruises reported.

Conclusion/Implications: The results of this study support the short term use of group acupuncture for breast cancer-related symptoms. It is considered valuable to patients as noted by high patient satisfaction scores. Limitations of this study include possible response bias, uncontrolled treatment regimens, the use of single item scaling questions for symptoms and the retrospective review. Future prospective controlled research is needed to further establish the relative efficacy of specific acupuncture treatments for cancer-related symptoms.

A-56. The Effects of (MBSR) on Multiple Biomarkers Among Breast Cancer Survivors (BCS) in Randomized Controlled Trial (RCT)

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Introduction: BCS are at high risk for symptom distress and related level changes of biomarkers, such as proinflammatory cytokines (interleukin 6 (IL-6), tumor necrosis factor-alpha (TNF-α), and soluble tumor necrosis factor receptor 1 (sTNFr1)), stress hormones (cortisol), and biological markers (telomerase activity (TA)). MBSR for Breast Cancer (MBSR(BC)) has been proven to reduce symptom distress. The purpose of this study was to: 1) evaluate the efficacy of the MBSR(BC) program in changing expression of these important biomarkers; and 2) identify their relationship with psychological and physical symptoms, and quality of life.

Methods: There were 322 BCS (Stages 0-III) randomized to a 6-week MBSR(BC) program (N=155) or Usual Care (UC) (N=167). This study assessed levels of salivary cortisol, TA, TNF-α, sTNFr1, and IL-6. Analyses included Spearman correlations, linear mixed models and paired T-tests methods.

Results: Over the 12 weeks, statistically significant increases were observed between MBSR(BC) and UC for TA (p<0.01), TNF-α(p<0.01), and IL-6 (p<0.05). No differences in sTNFr1 were observed between groups. Although cortisol levels were not different between groups across the 12 weeks, cortisol levels were reduced between pre and post MBSR(BC) at week 1 and 6 (p<0.01; MBSR(BC) group only). Some relationships between biomarkers and symptoms were observed: between IL-6 and pain (p<0.05), and QOL (p<0.05). These relationships were consistent across serum and salivary IL-6. Another was between cortisol and physical health (p=0.05) and these correlations tended to be small (r<.25), but consistent across time points.

Conclusion/Implications: MBSR(BC) was found to be an effective intervention which influenced TA, cortisol, TNF-α and IL-6 levels within these BCS. IL-6 and cortisol were related primarily to physical symptoms in early stage BCS. The study revealed the benefits of MBSR(BC), establishing it as a potential non-pharmacological intervention that can be delivered in clinics benefiting BCS by altering cortisol, TA, and cytokines with related symptom benefit.

A-57. Accessing Survivorship Services Among Young Breast Cancer Survivors

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Introduction: In the United States, 11% of breast cancer survivors are young (<45 years) at diagnosis. Young breast cancer survivors (YBCS) have health disparities (e.g., higher mortality and poorer quality of life) and unique survivorship needs including managing work, children and family relationships, and sexuality. Recognizing these needs, the Young Breast Cancer Survivorship Network (YBCSN) was developed to provide education, support, and networking to YBCS and their co-survivors through: [1] nurse consultations and referrals to survivorship services; [2] monthly education/support seminars; [3] annual workshop; and [4] social media through the YBCSN website (www.youngsurvivorsbhm.org). The paper will evaluate accessibility, satisfaction, quality of life changes, and barriers to the referred survivorship services for YBCS.

Methods: YBCS who received a referral via nurse consultation and enrolled in the YBCSN for at least 90 days, were asked to complete a telephone survey evaluating [1] access to referred survivorship services, [2], satisfaction with the referral (on a 10-point Likert scale), [3] change in quality of life, and [4] access barriers. Data collection occurred over three months.

Results: Of 70 eligible YBCS, 32 (46%) completed the survey. Referred services included: [1] one-on-one professional counseling (n=22), [2] supportive care (n=12), and [3] web-based education/support (n=9). Of the 99 referrals made, 39 (39%) referred services were accessed, and 34 (87%) of accessed services resulted in a positive change in quality of life. YBCS reported an average satisfaction of 8.9 on a 10-point scale. Reported barriers included time constraints, financial concerns, forgetfulness, and difficulty following through on referral.

Conclusion/Implications: YBCS, who accessed the YBCSN referred services, reported a positive change in quality of life and satisfaction with referral services. However, YBCS also encountered barriers. Extended web-based services may help reduce access barriers to survivorship services in the future.

A-58. I'm Still Young to Have a Breast Cancer