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The Impact of Integrative Breathwork Psychotherapy on the Psychosomatic Status of Breast Cancer Patients.

**Authors: Alicja Heyda, Marek K Jurkowski, Andrzej Czuba, Magdalena Głowala-Kosińska, Krzysztof Składowski,
Maria Skłodowska-Curie Memorial Cancer Center and Institute of Oncology Gliwice Branch, Poland**

Summary

Introduction

A growing body of evidence shows that early life stress, breaking the mother-newborn bond (early maternal neonatal separation) causes damage to natural breathing patterns, immune response and reaction to stress. Research on the immune effects of emotional expression (Pennebaker), psychosomatic networks (Pert et al.), mindfulness, pranayamas and neurobiology research on periaqueductal gray with associated neurophilosophy (Damasio, Watt) suggest the beneficial impact of conjoining rhythmic conscious breathing & non-judgmental self-awareness on endocrine, immune and nervous system adverse to early life stress. The goal of this study was to create a new form of body psychotherapy – Integrative Breathwork Psychotherapy (IBP) and compare its outcomes to results with a matched control group.

Method:

IBP had to satisfy many requirements specific to cancer patients. It had to cause an immediate affective and physical improvement, be suitable for patients differing in education, cognitive abilities, psychological mindedness, and fatigue levels as a result of other cancer treatments. Additionally it had to enable the patients in practice on their own after completing the intensive psychotherapy program. IBP integrates a daily intensive training of conscious connected breathing and that of mindfulness (long and short sessions). Long IBP sessions were followed by verbal expression where patients were encouraged to express their feelings and give them their own meaning. IBP has a strictly defined psycho-therapeutic setting, frequency and session time-line which differs from mainstream Rebirthing-Breathwork.

The following variables were analyzed: blood morphology like WBC, lymphocytes subclasses counts including Natural Killer cells (known of their anti-cancer activity), prolactin and cortisol serum concentration (stimulating and diminishing immune response respectively), parameters related to arterialized capillary blood gasometry (pO₂, pCo₂, blood pH), psychological (depression, anxiety, aggression -HADS-M, adaptation to cancer - Mini-Mac, Cantrill Ladder, interview on life stressors), medical status, and nicotine use of 78 breast cancer inpatients undergoing post-operative radical radiotherapy RT in years 2006-2007. Measurements were taken before starting IBP, after ten 45minute long sessions (3/per week), two weeks later (end of RT) and 3 months later. Hormones and capillary blood gasometry measures were also taken before 10th session and 30 min later (2/3 of the session). Experimental group (E) taking part in IBP (n=47) was similar to control group C (receiving standard psychological care and relaxation sessions, n=29) according to age (mean 51,8), stage of disease (T, N, pT, pN), treatment type. Both groups started with similar psychological profile.

Results

Two months after RT completion both groups showed decreased intensity of depression and anxiety compared to baseline (E- $p < 0,001$, C- $p < 0,01$). Anxiety after 10 sessions was lower in E group ($p < 0,05$). Aggression level was lower in E group in all measurement points except for pre-test ($p < 0,05$). Both groups reported diminished anxious preoccupation (Mini-Mac, E- $p < 0,05$, C- $p < 0,05$). NK cells counts were higher in E group 3 months post RT compared to C group ($p < 0,01$) and to E group baseline ($p < 0,001$). NKC counts increased in 72% of patients in E group and 32% of C group. Prolactin concentration raised only during IBP session ($p < 0,01$) and cortisol levels dropped in E group during IBP ($p < 0,001$) and 3 months later compared to group baseline ($p < 0,05$). E group showed large significant changes compared to baseline and differences compared to C group in most gasometry parameters (e.g. higher pO_2 , lower pCO_2 , higher pH). Other physiological variables showed significant patterns characteristic of radical radiotherapy.

Conclusion

Results support that activating the bond between breath and body-mind in the psychotherapy process allows patient to change old patterns of psycho-physiological functioning. Therefore IBP caused significant improvement in emotional status, hormonal and immune response of breast cancer patients.

Key words: breast cancer, Integrative Breathwork Psychotherapy, Natural Killer cells, cortisol, prolactin, pH