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Does a Ball Blanket influence HbA1c levels in patients with chronic non-malignant pain?

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Introduction

The Ball Blanket is reported to increase sleep quality and health related quality of life and reduce pain and anxiety in autistic children (1,2). It is a registered help remedy in DK, but there is a lack of scientific evidence of its effects. In order to evaluate the efficiency of the ball-blanket as a tool to reduce pain in patients with chronic pain this study was initiated. The study was approved by the Danish Ethical Committee (2007).

We focussed on the patients sleep quality, pain during day and night, and health related quality of life (SF-36). A physiological parameter was included to both examine its usefulness in reflecting stress in these patients and to reflect how therapy and the ball-blanket influenced this parameter. Patients are included until June 2009. The study is not completed before July 2010.

Inclusion

- Non-diabetic,
- Non-pregnant
- 18 years > Adult < 65 years

Treatment

- 8 weeks therapy (Coping or Pacing)
- Random/blinded distribution of placebo-blanket or ball-blanket

Parameters measured

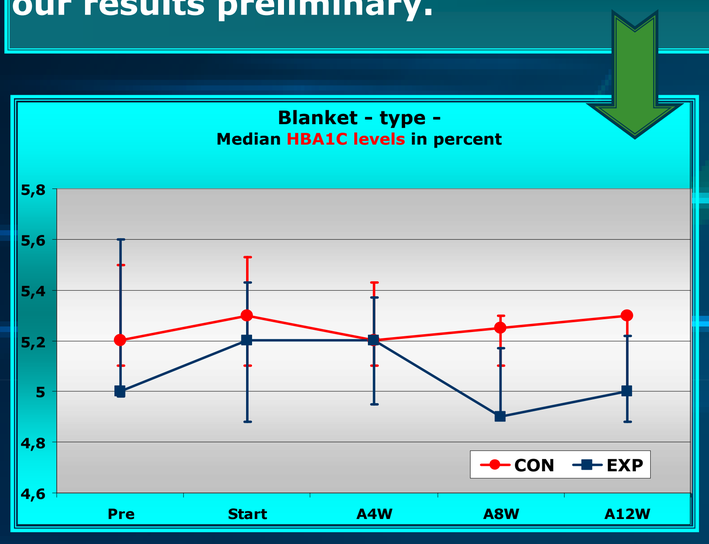
- <u>HbA1c levels in blood</u>
- Health Related Quality of Life by SF-36 questionnaire.

Other

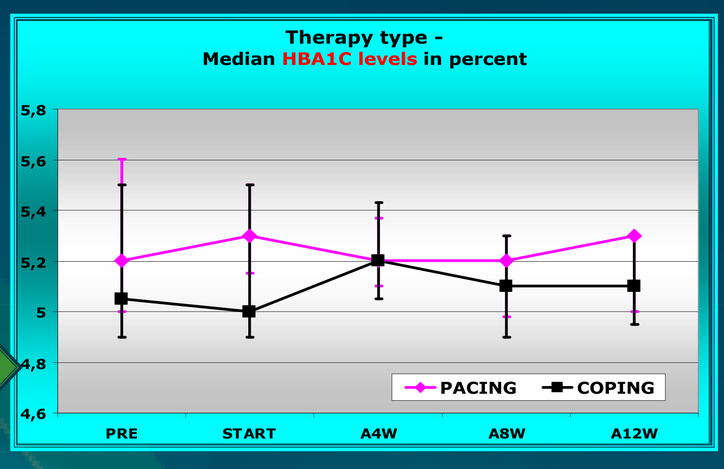
- VAS – score
- Use of Blanket
- Sleep quality

Results

Data on HbA1c levels failed the normality test. The median values, 25% and 75% fractile are shown in figure 1 and 2. Paired comparisons showed no significant differences between the control and experimental group (PRE: p=0,034; START: p=0,089; After 4 weeks (A4W): p=0,56; After 8 weeks (A8W): p=0,146; after 12 weeks (A12W): p=0,060, MWU-test). A tendency to lower HbA1c levels in the experimental group at the end of the study was found (A12W), however. The lack of some A4W, A8W and A12W-data from the last 10 patients, still in the study, make our results preliminary.



All patients received therapy for 8 weeks in the period between PRE and START-samplings. Patients were allocated to either PACING or COPING therapy after a personal interview. No significant differences were found between the therapy groups at any sampling time (Fig. 2; PRE: p=0,188; START: p=0,135; A4W: p=0,74; A8W: p=0,63; A12W:p=0,852, MWU-test)



Discussion and conclusion

The shown results are preliminary since some patients are still undergoing the study regime. There are no significant difference between the two therapy-types i.e. pacing and coping in levels of HbA1c at any time during the study (fig. 2). However, there is a tendency to lower levels of HbA1c in the experimental group after 8 and 12 weeks with the Ball blanket - a fall that may be caused by an increased activity (3) and reduced stress levels (4). Further analysis of the data and comparisons of HbA1c levels and results from VAS and the SF36 questionnaires will hopefully reveal some answers to whether a Ball Blanket is an efficient remedy to reduce stress and pain and increase health related quality of life in chronic non-malignant pain patients.

References

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