

Body and Cancer: a randomised phase III study in cancer patients undergoing chemotherapy - a supervised group exercise intervention versus standard care

Submission date 05/07/2007	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 13/08/2007	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
Last Edited 02/11/2009	Condition category Cancer	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

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Additional identifiers

Study information

Scientific Title

Acronym

BCIII

Study objectives

The hypothesis to be tested is that the outcomes - health benefits - in the intervention group is better than in the control group.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approval received from:

1. The Scientific Committees of the Copenhagen and Frederiksberg municipalities on the 24th June 2003 (ref: 01-273/00)
2. The Danish Data Protection Agency on the 1st August 2003 (ref: 2000-41-0-149)

Study design

Single-centre randomised prospective open label trial

Primary study design

Interventional

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Oncological and haematological cancer patients undergoing chemotherapy

Interventions

Cancer patients will be recruited from the Copenhagen University Hospital, Department of Oncology, Department of Haematology and from The Herlev Hospital, Department of Oncology.

After informed consent and baseline measures randomisation (Clinical Internet Trial Management System [CITMAS]). Data is anonymised using an ID-code and administrative data is kept in a separate database.

The intervention group:

The exercise intervention included four components:

1. Physical exercise (resistance and cardiovascular/fitness training)
2. Relaxation training
3. Body awareness training
4. Massage

The intervention took place in a specially designed workout room located at the Copenhagen University Hospital and was carried out over a six-week period, nine hours per week, in the mornings. Patients came in especially to participate in the exercise programme. On Mondays, Wednesdays and Fridays, the patients participated in physical exercise for 1.5 hours followed by

0.5 hours of relaxation. On Tuesdays, the programme included 1.5 hours of body awareness training followed by 0.5 hours of relaxation. Finally, on Mondays and Fridays, the patients received 0.5 hours of massage.

The different components of the programme constituted a total package, which implied that the patients could not select one activity in preference of another. Seven to ten patients of mixed gender were included in each group. Physiotherapists and a cancer nurse specialist supervised the programme. Pre-exercise screening was performed every second day before the high-intensity physical training.

If one of the following criteria were met, the patient was excluded from the physical training component of the programme on that specific day:

1. Diastolic blood pressure less than 45 mmHg or greater than 95 mmHg
2. Pulse at rest greater 100 beats per minute
3. Temperature greater than 38°C
4. Respiration frequency greater than 20 (number of respirations per minute)
5. Infection requiring treatment with antibiotics
6. Ongoing bleeding
7. Fresh petechiae
8. Bruises
9. Thrombocytes less than $50 \times 10^9/l$
10. Leucocytes less than $1.0 \times 10^9/l$

Heart rate was continuously monitored and measured by means of a wireless heart rate transmitter worn by the patients.

Control group:

Patients assigned to the control group received usual care from the health care team and completed outcome measures on the same time frame as the intervention group (no supervised exercise during a six-week period).

Intervention Type

Other

Phase

Phase III

Primary outcome(s)

Fatigue measure: European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30), measured at baseline, after six weeks and after three months.

Key secondary outcome(s)

1. Improvement in muscular strength, aerobic fitness measured using One Repetition Maximum (1RM), Maximal oxygen uptake (VO_{2max}), measured at baseline and after six weeks
2. Improvement in quality of life measured using QLQ-C30, Functional Assessment Cancer Therapy-Anaemia (FACT-An), measured at baseline, after six weeks and after three months
3. Improvement in general well-being measured using Medical Outcomes Study 36-item Short Form (MOS SF-36), measured at baseline, after six weeks and after three months
4. Reduction in anxiety and depression measured using Hospital Anxiety and Depression Scale

(HADS), measured at baseline, after six weeks and after three months

5. Physical activity level I - IV measured using the Saltin Scale, measured at baseline, after six weeks and after three months

Completion date

01/03/2007

Eligibility

Key inclusion criteria

1. World Health Organization (WHO) performance stage score zero to one
2. A diagnosis of cancer (one month previously), admitted to hospital for out-patient chemotherapy
3. Received at least one series of chemotherapy
4. Previously undergone surgery and/or radiotherapy
5. Age 18 to 65 years inclusive
6. Residence in the Greater Copenhagen Council
7. Written informed consent

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

Not Specified

Key exclusion criteria

1. Brain metastases
2. Bone metastases
3. Thrombocytopenia
4. Cardiovascular symptoms-cardial insufficiencies
5. No recent myocardial infarct
6. Normal blood pressure

Date of first enrolment

01/10/2003

Date of final enrolment

01/03/2007

Locations

Countries of recruitment

Denmark

Study participating centre

The University Hospitals Centre for Nursing and Care Research (UCSF)

Copenhagen

Denmark

DK-2100

Sponsor information

Organisation

The University Hospitals Centre for Nursing and Care Research (UCSF) (Denmark)

ROR

<https://ror.org/05bpbnx46>

Funder(s)

Funder type

Charity

Funder Name

The Danish Cancer Society (Denmark)

Funder Name

The Lundbeck Foundation (Denmark)

Funder Name

The Novo Nordic Foundation (Denmark)

Funder Name

The Ministry of Culture Committee on Sports Research (Denmark)

Funder Name

The Copenhagen University Hospital (Denmark)

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	13/10/2009		Yes	No