Patient information

A scientific investigation of two different schedules of radiotherapy to patients operated for breast cancer

Protocol title: Moderately hypofractionated loco-regional adjuvant radiation therapy of early breast cancer combined with a simultaneous integrated boost in patients with an indication for boost:

DBCG HYPO II,
a randomised clinically controlled trial

Number 1-10-72-409-14 Ethical Committee
The trial is approved by the Danish Ethical Committee journal nr. 1-10-72-409-14
Introduction

You have been diagnosed with and operated for a breast cancer, and based on the investigations performed until now, it is recommended that you receive radiotherapy of your breast or chest wall and also to lymph node regions close to the breast.

We would like to ask you if you are willing to participate in a scientific study.

The purpose of the study is to investigate if it is possible to adjust the radiotherapy given after breast operation from the current standard of 25 treatments to a new schedule of 15 treatments without seeing more side effects, and without risking more recurrences. This shorter treatment is already now being used as standard therapy in Holland and England, and the goal of this trial is therefore to assure a safe and quality controlled transition from 25 to 15 treatments in our country. We will make sure the radiation therapy is of high quality, and we will follow in detail the development of side effects to the treatment.

In this trial we plan to accrue around 2000 patients from 8 radiotherapy centres in Denmark and a number of foreign countries. The trial is conducted in collaboration with the DBCG (The Danish Breast Cancer Cooperative Group), which is a cooperative group among all the breast cancer treating departments in Denmark. DBCG is responsible for diagnosing and treatment of breast cancer in Denmark.

In a discussion with you, your doctor in attendance has proposed the idea of your participation in a study testing a new short radiotherapy schedule. The following written information is intended as an addition to the information you have already received from your doctor in attendance. Therefore it is important that you read the information carefully. You will be given time to consider your participation.

If you decide to participate in the study you will be asked to sign an informed consent form which is provided at the end of this information folder.

It is voluntary to participate in this study

It is voluntary to participate in this trial. The doctor will explain to you what other options there may be for your therapy. At any time you can withdraw your consent to participate in the study and thus leave the study without giving any explanation. You only have to inform the doctor or a person among the staff. Irrespective of you saying yes, no or regret your decision to participate at a later time you will be given the best possible treatment in our department.

Who may participate?

Patients more than 18 years old who have been operated for breast cancer where the tumor was large or with spread of disease to one or more lymph nodes can participate. This will indicate that the patient is offered radiation therapy to the breast or chest wall and in addition also to lymph nodes close to the breast region.

How is the study conducted?
The standard radiotherapy in your case is 25 treatments, 1 treatment daily Monday to Friday, and with 2 Gy (pronounced Gray, which is the unit for radiotherapy) per treatment, thus a total of 50 Gy. If you agree to enter the study your treatment will be decided by lot (randomisation), where two options are possible:

- Radiotherapy with 50 Gy over 25 treatments. Thus the dose is 2 Gy per treatment, and the treatment is given during 5 weeks.
- Radiotherapy with 40 Gy over 15 treatments. Thus the dose is 2.67 Gy per treatment, and the treatment is given during 3 weeks.

After the lot you will be informed about your treatment.

If you do not want to participate in the study your radiotherapy will be given as 50 Gy over 25 treatments.

**Patients who are treated with a boost**

If you were operated with breast conservation and at the day of operation was 41-49 years old you will be offered additional 5 fractions of radiotherapy to the area in the breast where the tumour was located. This is called a boost. If you at the day of operation with breast conservation were 40 years old or younger, or the breast cancer was removed with narrow margin, you will be offered additional 8 fractions of radiotherapy to the boost area.

The current standard in Denmark is that these extra 5-8 fractions are added in a sequential way to the above mentioned radiotherapy, thus adding up to 20-23 treatments if you were assigned 15 fractions at the lot, or 30-33 treatments if you were assigned 25 fractions at the lot.

However, if you participate in the above described lot and are going to receive a boost, the boost therapy will be provided as a simultaneous integrated boost, thus on every treatment day a little extra dose is delivered to the boost area throughout the whole treatment. By doing that the overall treatment time is shortened 5 treatment days.

All boost therapies in this trial will be provided as simultaneous integrated boost.

**How is the treatment given?**

The treatment is given outpatient and lasts around 15-20 min, total 15 or 25 times. Please, see more in the patient information folder from the department.

**What happens during and after the treatment?**

If you participate in the study you will be seen in the clinic at 1 extra visit compared to the standard therapy. At the extra visit you inform the doctor if you want to participate in the study, and during that visit, or by phone shortly after, you are informed about the result of the randomisation. In addition, you will be invited to the clinic for evaluation of side effects after the radiotherapy 6 times during the following 10 years. Since the primary aim of the study is to evaluate side effects after radiotherapy, we want to evaluate you before start of the radiotherapy and then at years 1, 2, 3, 4, 5 and 10 after the radiotherapy, where schemes will be filled in both by a specialist and by you, and photos will be taken of your breasts/chest region. Please, see a scheme over this later on in this folder.
As part of the study we also want to detect if unforeseen side effects develop in the heart, lung or the brain, and also if new types of cancer arise. In addition we follow if some of the patients have recurrence (to report where and when is the recurrence). This we will do for 15 years after the radiation therapy. These data will be used to document the safety of the radiation therapy.

**What side effects may occur?**

Most of the side effects are temporary and disappear gradually again when the radiotherapy ends, and these side effects are called “acute side effects”. The skin reaction most often appears 1–2 weeks after start on radiotherapy and may be a slight to brisk reddening of the skin. If the reaction is very strong, the skin may peel off and maybe blisters are seen. This may happen at the end of the radiotherapy. Also, the breast/chest wall may become sore and swell a little and sensations in the breast may occur. In some patients the irradiated breast/chest wall itches. The skin reaction may worsen during the first 2-3 weeks after the radiotherapy has ended but then it will gradually improve during the following 2-4 weeks. The skin reaction will heal by itself. The staff will provide you with information regarding your side effects and relevant skin creams.

If several lymph nodes were removed from the axilla during the operation there is a risk of developing swelling of the arm, called a lymph edema, and also stiffness of the shoulder. All patients should be informed by a physiotherapist on recommended exercises to do after the operation, but nevertheless more swelling and stiffness may emerge at the end of the radiation therapy course. Most often this is transient, since it reflects irritation of the tissues due to the therapy.

Months to years after the radiotherapy, late side effects may occur, and these have a tendency to be more chronic in character. An important late side effect is risk of lymph edema (swelling of the arm) and impaired range of motion of the shoulder. These conditions may be chronic, but most often they can be treated. If at a later time you start to use a compression arm sleeve or glove to treat a lymph edema we kindly ask you not to put this on 24 hours before coming to our clinic. This is because we want to measure if there is swelling of the arm on the treated side compared to the other side.

In the irradiated breast/chest wall, the skin may develop a darker colour (dyspigmentation), and maybe some of the small blood vessels in the skin may dilate a little (teleangectasias). The skin may feel more firm and rigid.

In previous studies where breast cancer patients have been followed for many years after radiotherapy a higher frequency of disease of the lung and heart has been reported. Since those studies were conducted the techniques for radiotherapy have been improved considerably and we always strive towards as little dose to the heart, lung, and ribs as possible. The risk of damage to the heart or lung is anticipated to be less than 1 per 100 irradiated patients. If you smoke we urge you to stop smoking, because this may increase the risk of damage to heart and lung.

If new knowledge or information regarding side effects to radiotherapy is published during the course of the current study, and which is not addressed by the evaluation already planned in the study, we may contact you by a letter with a questionnaire or via the internet before one of your planned visits in our clinic.
Pros and cons for participation in the study
Participation in the study will lead to 1 extra visit at the time of inclusion and 6 extra visits during the following 10 years for evaluation of side effects. Participation is not expected to result in either medical advantages or disadvantages. Participation may, however, result in 3 weeks treatment compared to standard 5 weeks treatment. The study is expected to result in new important information regarding breast radiotherapy and this may be to the benefit of future patients.

Can this study be closed before planned?
The doctor may advise you to withdraw from the study if it is likely that you will be better treated in another way. This may also happen without your consent. If the previous breast cancer should recur or you do not tolerate the therapy, you will be withdrawn from the study. You may be offered an alternative treatment in this situation. Also, DBCG or the authorities have the right to stop the study before planned, and in this situation you will be informed about the background for this decision.

Who may get access to your file?
Representatives from DBCG may under confidentiality gain access to your file. This is to ensure the validity and security of the information in your file. This permission to access your file may also be given to foreign health authorities. Your consent for this is necessary, thus we ask you to sign the consent form at the end of this folder. Your permission will last for 15 years.

All information is kept confidential. Your anonymity will be protected in a way where no information can be traced back to individual patients when the results from the study are published.

Will your general practitioner be informed about the study?
With your approval your general practitioner will be informed about your participation in the study.

Who pays for the study?
CIRRO (The Lundbeck Foundation Center for Interventional Research in Radiation Oncology) pays salary for academic work in this study (240,000 Danish kroner). From the Danish Cancer Society funding with 300,000 Danish kroner have been given to run the trial. The staff informing you about the study and delivering the therapy has no economic interests in the study.

Can you get access to your file?
Yes, you can get access to your file and all papers related to your participation in the study.

How to make complaints or apply for insurance
This is only for Danish patients:
You can complain about the treatment and apply for insurance if you are harmed in the study. In most cases your complaint will be to the Patient Appeal. If you want to apply for insurance money your application will be sent to the Patient insurance. The doctor will assist you with this application.

By signing the consent to enter the study you do not waive your legal rights as a participant in a scientific trial. Please, also see “Your rights as a test person in a biomedical research study” written by the Central Ethical Committee.

**Other therapy you may be offered outside this study**
You will be offered chemotherapy, anti-hormonal therapy and Herceptine if this is indicated after investigating the tumour removed from your breast. This will take place according to the department’s guidelines and is not influenced by your possible participation in the present study.
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<th>Investigations</th>
<th>Before RT</th>
<th>Years after start on radiotherapy (RT)</th>
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<tr>
<td>Specialist’s examination</td>
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<tr>
<td>Photography¹</td>
<td>O</td>
<td>O</td>
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<tr>
<td>Specialist filling out schemes</td>
<td>O</td>
<td>O</td>
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<td>Patient questionnaire</td>
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X this will take place irrespective of this study
0 this will take place if you enter this study
¹This photo will only include the region from your navel to the shoulders

If you have addition question regarding the trial, please contact:

.............................................. ..............................................
Name on doctor telephone
Written informed consent

A scientific study using two different schedules for radiotherapy of breast cancer

Protocol title: Hypofractionated versus normofractionated loco-regional breast irradiation to node-positive breast cancer patients: a randomised study

Name: ........................................................................................................................................

(patient label is accepted)

Date of birth: ..............................................................................................................................

(patient label is accepted)

Declare:

- That I want to participate in this study
- That I have been informed about this study both orally and in writing
- That I have received a copy of the patient information folder and informed consent form
- That my rights have been clearly explained to me

My participation in this study is voluntary. I have the opportunity to withdraw my consent to participate at any time without giving a reason for this. This will not affect my relationship to my doctor in attendance.

Date: ............................... Patient’s signature:............................................................................
(written by the patient)

Date: ............................... Informing doctor’s name:............................................................
(written by the doctor)

Informing doctor’s signature:.................................................................................................

Date: ............................... Study responsible doctor’s name: ............................................
(written by the doctor)

Study responsible doctor’s signature:.....................................................................................
Proxy

A scientific study using two different schedules for radiotherapy of breast cancer

Protocol title: Hypofractionated versus normofractionated loco-regional breast irradiation to node-positive breast cancer patients: a randomised study

Name: ........................................................................................................................................
(patient label is accepted)

Date of birth: .................................................................
(patient label is accepted)

Declare:

➢ That I accept that relevant parts of my file can be seen by a staff member from the DBCG or an equivalent foreign health authority up to 15 years after the termination of my radiotherapy.

Date: ......................... Patient’s signature:..............................................................................
(written by the patient)
Doctor to contact regarding the study:

Birgitte Offersen, læge
Onkologisk afdeling
Århus Sygehus
(write your own name and adress)