Intraoperative radiotherapy for breast cancer

Information for patients on the TARGIT study

TARGIT

No reason for despair

When breast cancer is diagnosed, it triggers a lot of questions and anxiety. It is comforting to know that major advances in the development of diagnostic and treatment procedures have been made in recent years. The past few years have seen a considerable improvement in the recovery rate for breast cancer.

The TARGIT study and the possibility of taking part

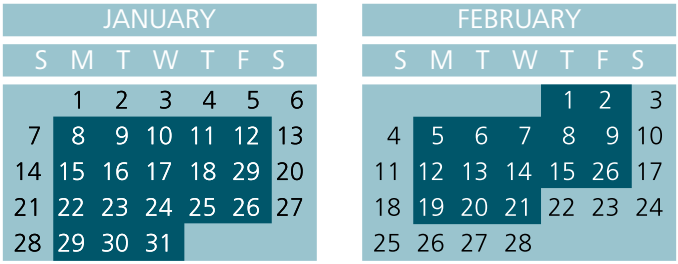
In an international study the TARGIT research group is focusing on a new method of radiotherapy in which the treatment can be reduced to a single radiation exposure. The radiation is administered during the surgery directly after the removal of the tumor.

A detailed examination by the treating physician determines whether a patient can take part in the TARGIT study.

Traditional radiotherapy

Radiotherapy is an important part of the breast-conserving treatment of breast cancer, with the goal of destroying any remaining tumor cells and preventing recurrences after surgical removal of the tumor.

In traditional radiotherapy the entire breast is irradiated by the use of linear accelerators. However, this exposes the entire tissue to a high dose of radiation. To reduce side-effects, the required radiotherapy is therefore spread over a period totaling 6-7 weeks, 5 times a week (Monday to Friday).



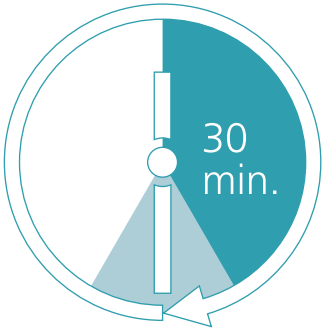
33 treatment days over a period of 6-7 weeks

TARGIT – Intraoperative radiotherapy with INTRABEAM®

With **TARG**eted **I**ntraoperative radio**T**herapy (TARGIT) the treatment is performed during the surgery after removal of the tumor, and the affected tissue in the tumor bed is exposed to the radiation from the inside. The INTRABEAM® radiotherapy system is used for this purpose. It is being clarified whether the single exposure can reduce the risk of recurrence of the cancer in the affected breast as effectively as traditional methods.

Benefits of intraoperative radiotherapy with INTRABEAM®:

- **targeted exposure of the tumor bed**
- **surrounding healthy tissue is protected**
- **treatment time reduced to one day**

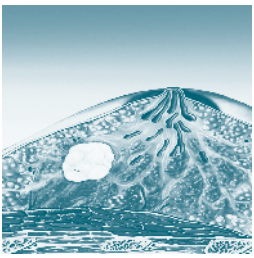


Single treatment for approx. 30 minutes

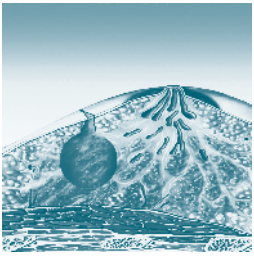
Leading cancer centers around the world are taking part in the TARGIT study. As a result, over 1000 women have already had the opportunity to be treated with the INTRABEAM®.

Treatment during the surgery

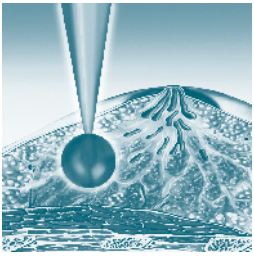
INTRABEAM®



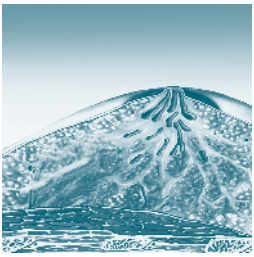
Step 1:
The position of the tumor is determined.



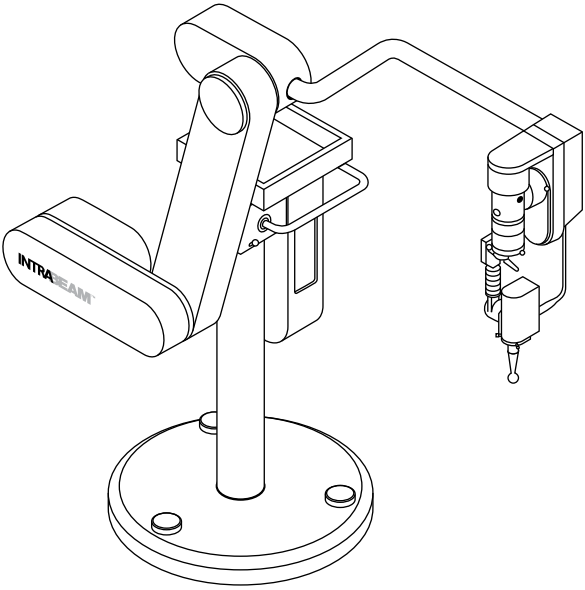
Step 2:
The tumor is surgically removed.



Step 3:
The INTRABEAM® applicator tip is positioned in the area of the breast where the tumor was located. The INTRABEAM® radiation is applied for about 30 minutes.



Step 4:
The applicator is removed and the incision is closed.



The INTRABEAM® system is being used in the TARGIT study. Its combination of soft X-rays and direct use during the surgery ensures considerably reduced radiation exposure compared to traditional radiotherapy, allowing gentle and, at the same time, effective treatment.

Who can take part in the TARGIT study?

Only the treating physician can determine after a thorough examination whether a patient is suitable for participation. Important factors for taking part include, for example, age, the type of cancer and the tumor size. The patient can then seek detailed advice about radiotherapy with INTRABEAM® and obtain information about participation in the TARGIT study. In the end, only the patient can decide if participation in this study is right for her.

How is the TARGIT study implemented?

On a random basis, one half of the women taking part receive traditional radiotherapy while the other half are treated intraoperatively with INTRABEAM®. In other words, the chance of being allocated to either group is 50 percent. Neither the patient nor the doctor has any influence over what treatment method is used.

What results are expected?

The results of existing studies on intraoperative radiotherapy using INTRABEAM® are encouraging. The TARGIT trial was started in March 2000*. The TARGIT research group hopes to show that:

- **Targeted intraoperative radiotherapy has a comparable or even lower recurrence rate compared to traditional radiotherapy.**
- **The side-effects of traditional post-operative radiotherapy can be lessened or possibly even completely avoided.**
- **The radiotherapy can be considerably shortened by the use of INTRABEAM® radiotherapy.**

The aim of the TARGIT study is to examine in detail and substantiate these benefits.

* Vaidya JS, Baum M, Tobias JS, et al. Targeted Intraoperative Radiothearpy (TARGIT)- trial protocol. The Lancet 1999; http://www.thelancet.com/protocol-reviews/99PRT-47.

TARGIT

For more information about TARGIT,
please contact:

With the kind support of:

ZEISS

INTRABEAM®
TARGIT Therapy System

EN_30_010_156i Printed in Germany AW-CZ-I/2010 Uoo