

## **Radiotherapy for Colorectal Cancer with Millimeter Precision**

A carcinoma refers to a malignant growth of mucous membrane, as can occur with the rectum with a rectal carcinoma or rectal cancer. Together with colon cancer, this disease represents the second most common type of cancer among men and women in Germany. In Germany, approximately 65,000 people are affected annually.

The goal in treating intestinal cancer is to remove or eliminate the tumour as well as numerous lymph nodes in order to cure the disease sustainably. Apart from a few exceptions, surgery is the first step. Radiotherapy can be the next step, particularly when the operation reveals that the growth was larger than presumed or that lymph nodes are already afflicted.

Colorectal cancer is the only form of intestinal cancer where radiotherapy is used. In treating rectal cancer, the following therapy goals are pursued:

### **■ Pre-surgery radiotherapy**

The goal of this treatment is to reduce the size of the tumour before the operation in order to facilitate complete removal through surgery. Furthermore, it should help to prevent the need for creating an artificial orifice in cases of larger or deeply-rooted tumours.

### **■ Post-surgery additional, supportive radiotherapy**

This involves eliminating any remaining cancer cells as extensively as possible after the operation.

The radiotherapy often can be combined with chemotherapy, known together as radio-chemo-therapy.

## **State-of-the-Art, High-Precision Treatment**

The intestines are especially sensitive, both in general, and to radiation in particular. Therefore, the best possible protection of healthy tissue and sensitive organs such as the bladder is vitally important. The special challenge of treating rectal cancer has been taken on by the MediClin Robert Janker Klinik. The specialized Klinik has further enhanced its stereotactic radiotherapy through

the Varian Silhouette irradiation system. As a result, our specialised Klinik and centre for high-precision radiotherapy offers highly accurate, effective and minimally invasive treatment options for patients diagnosed with rectal cancer.

Our state-of-the-art radiotherapy systems facilitate:

- The application of a concentrated, high dosage of irradiation to a precisely defined target area.
- The radiation exposure on the surrounding, healthy tissue and adjacent organs is minimized.
- Conversely, the concentration of irradiation is especially high at the targeted unhealthy area.

At MediClin Robert Janker Klinik, we place high value on treatment planning and preparing. The team of experts, consisting of radiotherapists and physicians, prepare an individual, computer-supported treatment plan. The images gained from this phase are transferred for planning to the radiotherapy system, where a special program calculates the exact target position, optimal dosage and configuration of the irradiation. Following that, meticulously monitored quality controls are conducted in order to ensure the irradiation that has been adjusted to the form of the tumour will hit the defined target area precisely.

## **Quality through Interdisciplinary Cooperation**

In addition to the state-of-the-art medical technology as well as over 70 years of experience, the MediClin Robert Janker Klinik is distinguished through its interdisciplinary exchange between radiotherapists and the oncologists in the area. By bringing together out- and inpatient therapy, our competence in the individual treatment of rectal cancer has been enhanced even further.

The network of care at our specialized Klinik for high-precision radiotherapy offers patients diagnosed with rectal cancer considerable advantages in the course of the entire treatment. Accordingly, prompt, efficient coordination is made possible among the specialists. From the radiological diagnostic to the therapy stage, the treatment plan is thoroughly coordinated with regard to duration, substance and location. For our patients, this close cooperation means shorter distances and less waiting time, while avoiding redundant and unnecessary examinations.