

HIFU Treatment With Ablatherm

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Currently, more than 38.7 million men worldwide have prostate cancer. This problem is growing very rapidly among men of all ages and one must be very aware of the symptoms so it can be caught in the early stages of development.

Cancer in itself is the when a group of cells begins to grow out of the bodies control and develop a tumor. When a tumor is cancerous, it causes pain and also threatens other tissues of the body, which, if not cured, can be life threatening. Cancerous cells can be transported throughout the body due to the vascular system which can lead to a spread of the disease.

The prostate is an oval shaped gland, which is directly below the bladder and is one of the male sex organs. It has many functions which include producing the majority of the fluids in semen. The growth of the prostate is affected by male sex hormones, the main affecter being testosterone. When cancer begins to develop, the main symptom is difficulty urinating because as the cancer begins to grow, there is more pressure on the urethra.

One product that is fairly new to the market is called the Ablatherm. This new technology is minimally invasive and has very low complication rate. It is only approved for the EU, Canada, Russia and South Korea. The Ablatherm is not available in the US because clinical studies are still being performed.

The Ablatherm treatment is given through the rectum where the patient is under a local anesthesia.

You may be asking what HIFU stands for. It means a high intensity focused ultrasound which is aimed at the site of the cells which need to be destroyed. The Ablatherm places a probe in the rectum which emits an oval shaped beam of HIFUs. This type of ultrasound raises the cell temperature to approximately 100 Degrees Celsius and destroys the targeted area. The range of the ultrasound is approximately 22mm wide by 2mm deep.

Prior to surgery, the patient must take sedatives and a spinal anesthesia is usually administered. Once the surgery is about to take place, the patient lays on their right side and must stay very still. The Ablatherm imaging system consists of an endorectal head which contains an imaging probe and the ultrasound emitter. These two items are surrounded by a liquid cooled balloon. The surgeon uses a computer screen to navigate and control the ultrasound shots that are fired within the body. It takes approximately 400-600 shots from the transducer to destroy an area that is 24mm by 2mm. It takes an average of 1-2 hours for the surgery to take place and approximately 3-8 days for the swelling of the prostate to subside depending on the severity of the cancer.

There were only four side effects recorded due to the Ablatherm treatment. Digestive complaints were recorded at a very low percentage of 1.8 %. Urethral stenosis occurred in 15% of the patients which can be caused by the scar tissue which grows in the treated area. Incontinence occurred in 10% of the patients while impotence occurred 57% of the time.