

Revolix JR Thulium laser in Robotic Surgery

Thanks to a breakthrough surgical technology, there is a new category of minimally invasive surgery for which you may be a candidate. It is an effective, minimally invasive alternative to both open surgery and laparoscopy. Through the use of the da Vinci® Surgical System, surgeons are now able to offer a minimally invasive option for complex surgical procedures. Imagine major surgery performed through the smallest of incisions. Imagine having the benefits of a definitive treatment but with the potential for significantly less pain, a shorter hospital stay, faster return to normal daily activities – as well as the potential for better clinical outcomes.

With the da Vinci Surgical System, surgeons and hospitals are re-writing accepted standards for surgical care, da Vinci is changing the experience of surgery.

The current techniques like monopolar/bipolar coagulation-RF-other lasers like CO2 holmium etc do not give that possibilities and medical outcome regarding endoscopic, Microscopic and open OR when working in soft tissue. Uncontrolled removal of tissue, necroses, not possible to reach a desired area, unexpected bleedings, damaging surrounding tissue areas are often rule than exception.

As everybody does know in the past some nasty sight effects have occur while working with the above mentioned techniques.

Now why would I advocate especially this Revolix laser possibility in combination with Robotic Surgery?



5 mm 5 Fr. Introducer Instrument

Let me first explain some basic physics regarding the laser and then make a translation to the medical area.

Absorption of light in tissue at different wavelengths is best described by the absorption spectra of the three most important body chromophores. These are melanin, blood and water – with water as the best target for a surgical laser because of its abundant availability in all sorts of soft tissue – no matter whether circulated or black or white.

So THE important word is absorption of energy in all human body areas
Based with this knowledge the target area became 2000Nm (2 micron) continues wavelength.

The result:

- A very reliable and cost efficient laser
- A clean and narrow cut: resection-vaporesction-coagulation-vaporisation
- Precise and controlled working
- Excellent haemostasis
- Penetration dept less then 0.25mm
- Coagulated seem less then 1mm
- Necroses area les then 1mm
- Flexible and reusable fibre delivery system for endoscopic, Robotic- and open surgery
- Histology samples

Over the years we gained experiences in several medical areas:

- * Urology
 - * ENT
 - * Plastic/reconstructive surgery
 - * Neurosurgery
 - * Pulmonology
 - * General Surgery
 - * Gynaecology
 - * Robotic Laser Surgery
 - * Laparoscopic Laser Surgery
- (Next will be Cancer Surgery)**

And now with the **Revolix 2Micron Thulium laser** you have the excellent symbioses of two worlds available.

Precise cutting, coagulation, vaporesction and working minimally invasive has become reality. Abroad scope of medical procedures are now possible with excellent medical outcome.

After thorough investigation this symbioses, Revolix laser and Davinci Robot, has been FDA approved.

With the Revolix 2Micron laser you have all surgical options: open, microscopic, minimally invasive and Robotic!

The surgeon can work faster, more precise and very concentrated, even at very difficult locations the quality of result remains excellent.

The surgeon, hospital and patient have many advantages:

- Shorter hospital stay
- Smaller incisions
- Less pain and scarring
- Less risk of infection
- Faster recovery and back to daily activity
- Excellent worldwide clinical outcomes
- Quicker return to normal activities
- Superb 3D vision
- Excellent tissue vaporization
- Excellent haemostasis
- No need to stop with anti-coagulation medicine
- Very precise laser surgery, penetration depth less than 1mm