



ReSitu Medical

Precision Surgery

Game changing technology in tumour biopsy & treatment

ReSitu™ tissue extraction device

Panel

Animation (youtube)

Function

<https://youtu.be/L79Uk3fCrvk>

In vitro

https://www.youtube.com/watch?v=QkWPppOC9_w



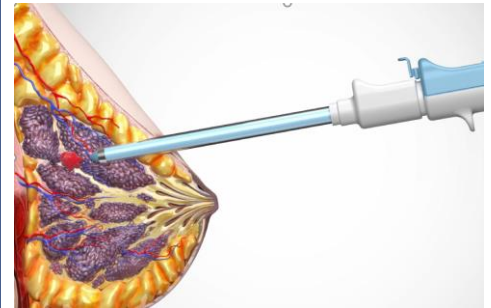
In action (youtube)

Function

<https://youtu.be/RTn1EGJc-hQ>

In vitro

<https://youtu.be/1irvq0zcsa0>



Benefits



More treatments options

Diameter of the instrument can be varied allowing potential removal of the whole tumour.



Cost savings

Smaller tumours can be extracted with local anaesthetic under HRUS guidance avoiding full surgical procedure under general anesthesia. The device can also be used by radiologists.



Single use disposable

Easy handling at clinic. **ReSitu™** can be produced at a relatively low cost, making it competitive as well as affordable even for poorer countries.



Low initial investment costs

ReSitu™ connects to a standard ESU unit that is available in every clinic or hospital.



Many treatment options

The device can potentially be used to remove tumours in several different tissue sites including breast, brain, liver and prostate.

HRUS = High Resolution Ultra Sound

ESU = ElectroEurgical Unit

Invention description

- Many different biopsy devices exist on the market, but all have severe drawbacks related to e.g. price and especially a limited biopsy size. **ReSitu™** is a new patented technology primarily intended for taking core biopsies of breast tumour, but could likely be used for many other types of tumours as well.
- The diameter of the instrument can be varied from mm to cm diameters, allowing biopsies of different size. Thus the device could potentially be used to remove a whole tumour, without the need for surgical intervention and general anesthesia.
- Like the development in coronary heart problems, when radiologists today insert stents without the need for open heart surgery, it is possible that the **ReSitu™** device could be used by radiologists to treat tumours without the aid of surgeons.
- The **ReSitu™** device combines a blunt penetration rod and a central electrosurgical cutting device for bloodless access to the tumor site.
- This is possible thanks to the recent development of high quality HRUS (high resolution ultrasound), which guides the procedure from the skin surface. Withdrawing the penetration rod creates a vacuum and exposes a circular cutting knife which is passed past the tumour site.
- Finally a centrally located electrosurgical cutting device is used to free the tumour and control hemostasis.
- ESU facilitates penetration of dense tissue.

ReSitu™ andvantages

Panel

- No other technique on the market can remove a large piece of tissue “en-block” without surgical intervention.
- Only the **ReSitu™** technique uses blunt penetration and electrocautery cutting to reach the tumour site and to control bleeding.

Other techniques used for biopsy:

1. Fine needle biopsy: A thin needle is used to extract cells and fluid from the tumour. This does not give a definite diagnosis, as the growth pattern of the cells cannot be observed. Due to this, many countries avoid relying on this technique. Lately some breakthrough with more refined diagnostics, so called liquid biopsies, have been introduced.
2. Core needle biopsy: A larger needle with a cutting tip is used to draw a column of tissue out of a suspicious area.
3. Vacuum-assisted biopsy: A suction device increases the amount of fluid and cells extracted through the needle, reducing the number of times the needle must be inserted to collect an adequate sample.
4. Open biopsy: A surgeon accesses the site and removes the tumour or takes a biopsy. This does not enable as exact a positioning of the tumour as during HRUS guidance and usually requires general anesthesia.