

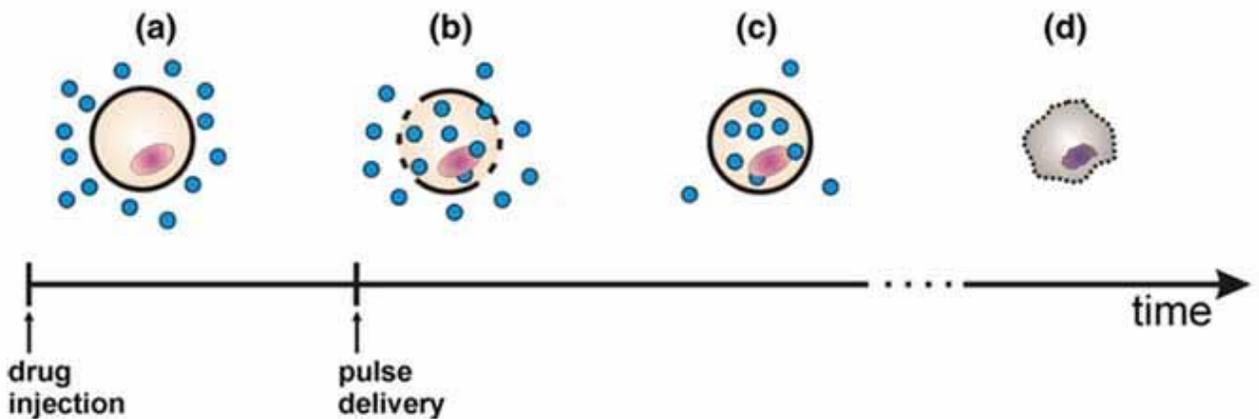
Prostate Cancer Treatment with Electrochemotherapy (ECT)

Patient Information

Electrochemotherapy opens up new possibilities in the treatment of complex and advanced tumors - in a gentle way. With thousands of patients treated in more than 100 medical facilities worldwide, ECT is a well-established method in certain areas for treating a variety of cancers which fail conventional procedures. ECT for prostate cancer is an experimental therapy which has not been tested in clinical trials yet. Our center has treated over 20 patients since late 2017 in cases where established treatments failed. It is minimally invasive, in most cases painless and usually only needs to be applied once.

What is Electrochemotherapy, and how does it work?

Electrochemotherapy is the combination of cell Electroporation and the administration of a chemotherapeutic agent in order to kill cancer cells on a molecular level. Electroporation is a biophysical process that makes the walls of cells (cell membranes) within the treatment field permeable by short electrical currents (pulses). Depending on the number and strength of these pulses, the cell membrane become temporarily (reversibly) or permanently (irreversibly) permeable. When a chemotherapeutic drug is applied, it can enter the cells more easily and in higher concentrations, thus effectively and gently killing tumor cells in the treatment area.



The concept of Electrochemotherapy: (a) the chemotherapeutic is located outside the cancer cell after injection (b) The cell membrane is perforated by electroporation allowing chemotherapeutic to invade (c) Membrane closes again, chemotherapeutic remains in the cell (d) As a result, it can damage the DNA, ultimately causing the cell to die from inside.¹

1. doi:10.1007/s11517-012-0991-8

What are common side effects?

ECT is performed under general anesthesia. Wound pain typically does not occur. For ECT, the chemotherapeutic is administered intravenously in a relatively low dose. Typical side effects such as nausea and hair loss are thereby uncommon. Additionally, only one application is usually sufficient. Repetitions for longer periods, as is the case in typical chemotherapy, are not required. However, as with every medical procedure, side effects are a possibility. Our physicians will answer your questions regarding side effects in a personal consultation.

How long does the treatment take?

A previous MRI of the prostate is required for treatment planning. In your consultation with your VITUS physician, you will receive all information regarding the treatment and give written consent a minimum of 24h before treatment. Treatment with ECT usually takes 90 to 120 minutes. After an observational overnight hospital stay, you can return to your everyday live the next day without any impairment. For treatment of the prostate, a catheter will be worn up to 2 weeks post ECT.

For more information on ECT of the prostate, please visit www.vitusprostate.com