

## Whole body hyperthermy – local hyperthermy

### Whole body hyperthermy

The aim of the cancer treatment is to stop the malignus processes and destroy the existing tumour. The critical target of the damage is the cell-membrane. The well-known advantages of hyperthermy are based on the heat effect, with the main problem how to deliver it into the proper place. Here we have a special bed where the patient is heated up. The whole body hyperthermy usually is combined with other methods of cancer treatment.

### Local hyperthermy

The local hyperthermy has some well established and widely spread methods to deliver the most optimal heat for treatment. Among these is one of the oldest the capacitive-coupled RF-hyperthermy, which is applied in many clinics. We put this method into the focus, because it has such advantages, which are not available in other kinds of hyperthermy-treatments.

### The local electro-hyperthermia acts as follows:

1. It self-focuses on the cancer cells, and the malignant tissue,
2. destroys the malignant cells by their thermo-sensitive status
3. lowers the pH, gives acidic poisoning to the tumor,
4. destroys the positive feedback chemical loops in cancer stimulation
5. destroys the closed depolarisation-current loops,
6. instabilises the tumour-cell membrane,
7. makes shocking fluctuations against the stabilisation tendencies,
8. destroys some intra-cellular structures by induction,
9. blocks the pain-receptors,
10. repolarisates (or hyperpolarisates) the membrane of the tumourcell,
11. gives a coherency-signal for the healing of the slightly defected cells,
12. makes a relaxed state in action

### Main indications

- primer tumors and metastasizes in organs (incl.; liver, pancreas, kidney, lung, brain, etc)
- small and large intestine, stomach, oesophagus, etc
- deep-seated gynaecological cases

### Contra indications

- Can not be used for treating patients who have pacemaker
- Can not be used for treating patients who have joint-support
- Can not be used for treating patients who have any metallic implantation
- Can not be used for treating patients who have large combustion