RADIOFREQUENCY THERMOABLATION IN LOCALLY ADVANCED BREAST CANCER

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The Authors report their experience about 12 cases of advanced breast cancer in 10 patients (including two patients with bilateral breast cancer) treated by radiofrequency thermoablation (RT) over a period of 9 years.

At follow-up four patients died after a median time of 60 months (range 1.5-7 years); four patients are still alive over a period of up to 9 years (range 6 months-8 years).

In five patients a local regression of the mass was observed, whereas in the remaining 5 patients only partial regression was observed.

One of these patients had an hemorrhagic cancer and the RT was effective also as a haemostatic treatment. After the treatments a chest CT scan showed also partial regression of her pulmonary metastasis.

The Authors hypothesize that RT may improve the individual immune response and reduce the blood levels of oncologic markers (CEA, Ca 15-3).

One of the patients underwent a simple quadrantectomy under local anaesthesia two years later, thanks to the bulk reducing effect of RT. She is still alive at 9 years follow-up. The authors believe that RT might prove effective as bulk reducing treatment, allowing performing less destructive surgery.

Of the 2 most recently treated patients one also had severe respiratory failure requiring permanent O₂ therapy and severe cardiomyopathy with atrial fibrillation, treated with oral anticoagulants. The other patients had a large haemorrhagic mass incasing the outer quadrants, the axilla, the supraclavicular, axillary and lateral cervical lymph nodes and the chest wall down to the pleuras. She had also failed to respond to treatment with monoclonal antibodies. In the latter 2 cases a reduction of the levels of tumoral markers was observe, too. Further follow-up is required to
confirm this findings. In the 2nd patient the mass stopped bleeding, its size went down by 60-70% and there was no further need for blood transfusions or erythropoietin treatment following RT. RT alone or combined with other treatments is a simple procedure useful in selected patients with advanced breast cancer who cannot undergo surgery or refuse other treatments. It may also prove useful as a bulk reducing treatment in locally extended tumors prior to surgical treatments. Further studies are needed to confirm these preliminary results.

Key words: Thermoablation, Radiofrequency, Breast cancer.