Abstract:

For some time hyperthermia, alone or in combination with radiotherapy or chemotherapy, has proved to be a promising method for treating several kinds of solid tumors. After intensive laboratory investigations a new device, based on a microwave source delivering local bladder hyperthermia together with intravesical mitomycin C chemotherapy has been clinically tested as a neoadjuvant approach in 44 patients suffering from superficial cancer of the bladder. The combined approach was administered on an outpatient basis without major complications and with acceptable local toxicity. Endoscopic and histological evaluations proved that combined local hyperthermia and chemotherapy can induce necrosis of transitional tumors. The overall response rate was 90.8%, with 70.4% complete and 20.4% partial, leaving 4 patients (9.2%) nonrespondent. Clinical and histological evaluations have confirmed the feasibility and safety of this combined treatment. Further multicentric studies have been initiated.