Improving superficial hyperthermia treatment

Temperature matters

Bakker, A.

Publication date
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ADDENDUM

LIST OF PUBLICATIONS

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A. Bakker, R. Zweije, H.P. Kok, M.W. Kolff, H.J.G.D. van den Bongard, M. Schmidt, G. van Tienhoven, J. Crezee. Clinical feasibility of a high-resolution thermal monitoring sheet for superficial hyperthermia in breast cancer patients. Cancers (Basel). 2020, 12(12), 3644, doi:10.3390/cancers12123644.

H.P. Kok, J. Groen, A. Bakker, J. Crezee. Modelling curved contact flexible microstrip applicators for patient-specific superficial hyperthermia treatment planning. Cancers (Basel). 2020, 12, doi:10.3390/cancers12030656.

A. Bakker, R. Zweije, G. van Tienhoven, H.P. Kok, J. Sijbrands, H.J.G.D. van den Bongard, C.R.N. Rasch, J. Crezee. Two high-resolution thermal monitoring sheets for clinical superficial hyperthermia. Phys. Med. Biol. 2020, 65, 175021, doi:10.1088/1361-6560/ab9bc2.

A. Bakker, J. van der Zee, G. van Tienhoven, H.P. Kok, C.R.N. Rasch, J. Crezee. Temperature and thermal dose during radiotherapy and hyperthermia for recurrent breast cancer are related to clinical outcome and thermal toxicity: A systematic review. Int. J. Hyperth. 2019, 36, 1024–1039, doi:10.1080/02656736.2019.1665718.

G. Schooneveldt, H.P. Kok, A. Bakker, E.D. Geijsen, C.R.N. Rasch, J.J.M.C.H. de la Rosette, M.C.C.M. Hulshof, T.M. de Reijke, J. Crezee. Clinical validation of a novel thermophysical bladder model designed to improve the accuracy of hyperthermia treatment planning in the pelvic region. Int. J. Hyperth. 2018, 35, 383–397, doi:10.1080/02656736.2018.1506164.

H.P. Kok, L. Korshuize-van Straten, A. Bakker, R. de Kroon–Oldenhof, G.H. Westerveld, E. Versteijne, L.J.A. Stalpers, J. Crezee. Feasibility of on-line temperature-based hyperthermia treatment planning to improve tumour temperatures during locoregional hyperthermia. Int. J. Hyperth. 2018, 34, 1082–1091, doi:10.1080/02656736.2017.1400120.

G. Schooneveldt, H.P. Kok, A. Bakker, E.D. Geijsen, M.C.C.M. Hulshof, T.M. de Reijke, J. Crezee. The effect of air pockets in the urinary bladder on the temperature distribution during loco-regional hyperthermia treatment of bladder cancer patients. Int. J. Hyperth. 2018, 35, 441–449, doi:10.1080/02656736.2018.1506890.

H.P. Kok, G. Schooneveldt, A. Bakker, R. de Kroon-Oldenhof, L. Korshuize-van Straten, C.E. de Jong, E. Steggerda-Carvalho, E.D. Geijsen, L.J.A. Stalpers, J. Crezee. Predictive value of simulated SAR and temperature for changes in measured temperature after phase-amplitude steering during locoregional hyperthermia treatments. Int. J. Hyperth. 2018, 35, 330–339, doi:10.1080/02656736.2018.1500720.

A. Bakker, R. Holman, D.B. Rodrigues, H. Dobšíček Trefná, P.R. Stauffer, G. van Tienhoven, C.R.N. Rasch, J. Crezee. Analysis of the required number of sensors for adequate monitoring of skin temperature distribution during superficial microwave hyperthermia treatment. Int. J. Hyperth. 2018, 34, 910–917, doi:10.1007/s00066-018-1295-1.

H. Dobšíček Trefná, J. Crezee, M. Schmidt, J. Hartmann, D. Marder, N. Lomax, U. Lamprecht, M. Ehmann, J. Nadobny, S. Abdel-Rahman, S. Curto, A. Bakker, M.D. Hurwitz, C.J. Diederich, P.R. Stauffer, G.C. van Rhoon. Quality assurance guidelines for superficial hyperthermia clinical trials: II.Technical requirements for heating devices. Strahlentherapie und Onkol. 2017, 193, 351–366, doi:10.1007/s00066-017-1106-0.

H. Dobšíček Trefná, J. Crezee, M. Schmidt, D. Marder, U. Lamprecht, M. Ehmann, J. Hartmann, J. Nadobny, J. Gellermann, N. van Holthe, P. Ghadjar, N. Lomax, S. Abdel-Rahman, C. Bert, A. Bakker, M.D. Hurwitz, C.J. Diederich, P.R. Stauffer, G.C. van Rhoon. Quality assurance guidelines for superficial hyperthermia clinical trials: I. Clinical requirements. Int. J. Hyperth. 2017, 33, 471–482, doi:10.1080/02656736.2016.1277791.

G. van Stam, H.P. Kok, M.C.C.M. Hulshof, M.W. Kolff, G. van Tienhoven, J. Sijbrands, A. Bakker, P.J. Zum Vörde Sive Vörding, S. Oldenborg, M. de Greef, C.R.N. Rasch, J. Crezee. A flexible 70 MHz phase-controlled double waveguide system for hyperthermia treatment of superficial tumours with deep infiltration. Int. J. Hyperth. 2017, 6736, 1–14, doi:10.1080/02656736.2017.1313460.

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A. Bakker, M.W. Kolff, R. Holman, C.M. van Leeuwen, L. Korshuize-van Straten, R. de Kroon-Oldenhof, C.R.N. Rasch, G. van Tienhoven, J. Crezee. Thermal skin damage during reirradiation and hyperthermia is time-temperature dependent. Int. J. Radiat. Oncol. Biol. Phys. 2017, 98, 392–399, doi:10.1016/j.ijrobp.2017.02.009.

G. Schooneveldt, A. Bakker, E. Balidemaj, R. Chopra, J. Crezee, E.D. Geijsen, J. Hartmann, M.C.C.M. Hulshof, H.P. Kok, M.M. Paulides, A. Sousa-Escandon, P.R. Stauffer, P.F. Maccarini. Thermal dosimetry for bladder hyperthermia treatment. An overview. Int. J. Hyperth. 2016, 32, 417–433, doi:10.3109/02656736.2016.1156170.

G. Schooneveldt, H.P. Kok, E. Balidemaj, E.D. Geijsen, F. van Ommen, J. Sijbrands, A. Bakker, J.J.M.C.H. de la Rosette, M.C.C.M. Hulshof, T.M. de Reijke, J. Crezee. Improving hyperthermia treatment planning for the pelvis by accurate fluid modeling. Med. Phys. 2016, 43, 5442–5452, doi:10.1118/1.4961741.

ADDENDUM

AUTHOR CONTRIBUTIONS

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Chapter 2: Temperature and thermal dose during radiotherapy and hyperthermia for recurrent breast cancer are related to clinical outcome and thermal toxicity: A systematic review.
Conceptualization: A. Bakker, G. van Tienhoven, C.R.N. Rasch and H. Crezee; Design: A. Bakker and H. Crezee; Acquisition: A. Bakker and J. van der Zee; Analysis: A. Bakker and J. van der Zee; Interpretation: A. Bakker, J. van der Zee, G. van Tienhoven, H.P. Kok, C.R.N. Rasch and H. Crezee; Writing - draft: A. Bakker; Writing - review and editing: A. Bakker, J. van der Zee, G. van Tienhoven, H.P. Kok, C.R.N. Rasch and H. Crezee.

Chapter 3: Post-operative re-irradiation with hyperthermia in locoregional breast cancer recurrence: Temperature matters.
Conceptualization: A. Bakker, C.P. Tello Valverde, G. van Tienhoven, M.W. Kolff, H.J.G.D. van den Bongard and H. Crezee; Design: A. Bakker, C.P. Tello Valverde, H.J.G.D. van den Bongard and H. Crezee; Acquisition: A. Bakker and C.P. Tello Valverde; Analysis: A. Bakker and C.P. Tello Valverde; Interpretation: A. Bakker, C.P. Tello Valverde, H.J.G.D. van den Bongard and H. Crezee; Writing - draft: A. Bakker and C.P. Tello Valverde; Writing - review and editing: A. Bakker, C.P. Tello Valverde, G. van Tienhoven, M.W. Kolff, H.P. Kok, B.J. Slotman, I.R.H.M. Konings, A.L. Oei, H.S.A. Oldenburg, C.R.N. Rasch, H.J.G.D. van den Bongard and H. Crezee.

Chapter 4: Thermal skin damage during re-irradiation and hyperthermia is time-temperature dependent.
Conceptualization: A. Bakker, M.W. Kolff and H. Crezee; Design: A. Bakker, M.W. Kolff, R. Holman and H. Crezee; Acquisition: A. Bakker, M.W. Kolff, L. Korshuize-van Straten and R. de Kroon-Oldenhof; Analysis: A. Bakker, R. Holman, C.M. van Leeuwen; Interpretation: A. Bakker, M.W. Kolff, R. Holman, C.M. van Leeuwen, C.R.N. Rasch, G. van Tienhoven and H. Crezee; Writing - draft: A. Bakker; Writing - review and editing: A. Bakker, M.W. Kolff, R. Holman, C.M. van Leeuwen, L. Korshuize-van Straten, R. de Kroon-Oldenhof, C.R.N. Rasch, G. van Tienhoven and H. Crezee.

Chapter 5: Analysis of clinical data to determine the minimum number of sensors required for adequate skin temperature monitoring of superficial hyperthermia treatments.
Conceptualization: A. Bakker, G. van Tienhoven, C.R.N. Rasch and H. Crezee; Design: A. Bakker, R. Holman and H. Crezee; Acquisition: A. Bakker; Analysis: A. Bakker and R. Holman; Interpretation: A. Bakker, R. Holman, D.B. Rodrigues, H. Dobšíček Trefná, P.R. Stauffer and H. Crezee; Writing - draft: A. Bakker; Writing - review and editing: A. Bakker, R. Holman, D.B. Rodrigues, H. Dobšíček Trefná, P.R. Stauffer, G. van Tienhoven, C.R.N. Rasch and H. Crezee.

Chapter 6: Two high-resolution thermal monitoring sheets for clinical superficial hyperthermia.
Conceptualization: A. Bakker, G. van Tienhoven, C.R.N. Rasch and H. Crezee; Design: A. Bakker, R. Zweije and H. Crezee; Acquisition: A. Bakker, R. Zweije and J. Sijbrands; Analysis: A. Bakker; Interpretation: A. Bakker, R. Zweije, H.P. Kok and H. Crezee; Writing - draft: A. Bakker; Writing - review and editing: A. Bakker, R. Zweije, G. van Tienhoven, H.P. Kok, J. Sijbrands, H.J.G.D. van den Bongard, C.R.N. Rasch and H. Crezee.

Chapter 7: Clinical feasibility of a high-resolution thermal monitoring sheet for superficial hyperthermia in breast cancer patients.
Conceptualization: A. Bakker, G. van Tienhoven and H. Crezee; Design: A. Bakker, R. Zweije, G. van Tienhoven and H. Crezee; Acquisition: A. Bakker and R. Zweije; Analysis: A. Bakker, R. Zweije, H.P. Kok, M.W. Kolff, H.J.G.D. van den Bongard, G. van Tienhoven and H. Crezee; Interpretation: A. Bakker, R. Zweije, M.W. Kolff, H.J.G.D. van den Bongard and G. van Tienhoven; Writing - draft: A. Bakker; Writing - review and editing: A. Bakker, R. Zweije, H.P. Kok, M.W. Kolff, H.J.G.D. van den Bongard, M. Schmidt, G. van Tienhoven and H. Crezee.