

genitourinary tumours, non-prostate

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BRAIN METASTASES IN MALE GERM CELL TUMORS (GCT): A LARGE RETROSPECTIVE ANALYSIS ON BEHALF OF THE SWENOTECA AND THE G3 CONSORTIUM

J. Beyer¹, A. Lorch², T. Powles³, A. Kramar⁴, L. van Alstine², P. Giannatempo⁵, T. Sava⁶, C. Albany⁷, L. Einhorn⁷, A. Flechon⁸, J. Aparicio⁹, P. Chung¹⁰, R. A. Huddart¹¹, C. Bokemeyer¹², A. Tryakin¹³, E. Winquist¹⁴, C. Sweeney¹⁵, M. Henrich¹⁶, K. Margolin¹⁷, D.R. Feldman¹⁸

¹Department of Oncology, Universitätsspital Zürich, Zurich, SWITZERLAND

²Urology, University of Düsseldorf, Duesseldorf, GERMANY

³Medical Oncology, St. Bart's Hospital & Medical School, London, UK

⁴Biostatistics, Centre Oscar Lambret, Lille, FRANCE

⁵Dept. Genitourinary, Fondazione IRCCS - Istituto Nazionale dei Tumori, Milan, ITALY

⁶Oncologia Do, Azienda Ospedaliera Universitaria Integrata Verona, Verona, ITALY

⁷Medical Oncology, Indiana University Simon Cancer Center, Indianapolis, IN, USA

⁸Oncology Department, Centre Léon Bérard, Lyon, FRANCE

⁹Medical Oncology Department, La Fe University Hospital, Valencia, SPAIN

¹⁰Radiation Oncology, Princess Margaret Hospital, Toronto, ON, CANADA

¹¹Royal Marsden Hospital/Institute of Cancer Research, Sutton, UK

¹²Dept. Hemato/oncology, UKE Universitätsklinikum Hamburg-Eppendorf KMTZ, Hamburg, GERMANY

¹³Clinical Pharmacology and Chemotherapy, N. N. Blokhin Russian Cancer Research Center, Moscow, RUSSIAN FEDERATION

¹⁴Medical Oncology, University of Western Ontario London Regional Cancer Center, London, ON, CANADA

¹⁵Medical Oncology, Dana Farber Institute, Boston, MA, USA

¹⁶Klinik für Onkologie, Städtisches Klinikum München GmbH, München, GERMANY

¹⁷Medical Oncology, University of Washington Seattle Cancer Care Alliance,

Seattle, WA, USA

¹⁸Medical Oncology, MSKCC, New York, NY, USA

Aim: Characteristics, treatment and outcome of patients (pts) with brain metastases (BMet) from GCT are largely unknown due to a lack of data. We addressed these issues in a large international retrospective cohort.

Methods: Data on pts diagnosed with BMet between 1990 and 2013 was retrospectively collected across 46 institutions worldwide. Data collection and analyses followed a predefined protocol and had obtained appropriate ethical approval. Univariate analysis was used to identify prognostic factors. The Kaplan Meier method was used to assess outcome.

Results: Data on 523 patients were collected: 228 (44%) in pts with BMet at initial diagnosis (group A) and 295 (56%) in pts with BMet at relapse (group B), 150 (31%) pts were asymptomatic at presentation. Median age was 29 years (range 16–67 years). Median follow-up after diagnosis of BMet was 7 years. Pts from group A had a significantly better PFS (median 6.9 versus 3.6 months, HR 0.60; 95%CI: 0.49 – 0.73; $P < 0.0001$) and OS (median 29.5 versus 8.0 months, HR 0.50; 95%CI: 0.40 – 0.62); $P < 0.0001$ compared to pts from group B. Pts with multiple BMet from both groups had a worse OS than those with single BMet (HR 1.77; 95%CI: 1.17 – 2.68; $P < .005$ in group A and HR 1.89; 95%CI: 1.42 – 2.51; $P < 0.0001$ in group B, respectively). Presence of liver and/or bone metastases also negatively impacted on survival. Surgery and to a lesser degree radiotherapy in addition to chemotherapy were associated with improved OS in both groups. The combination of chemotherapy, radiotherapy and surgery was associated with improved survival only in group B. High-dose chemotherapy (HDCT) was also associated with improved survival only in group B.

Conclusions: Conclusions: Pts with GCT and BMet can be cured. Pts with BMet at initial diagnosis and those with solitary BMet have superior outcomes compared to pts with BMet at relapse or with multiple BMet lesions. Surgery and/or radiotherapy in addition to chemotherapy as well as HDCT in pts with BMet at relapse may improve survival.

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