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IDENTIFICATION AND ASSESSMENT OF HEALTH RELATED QUALITY OF LIFE ISSUES IN PATIENTS WITH SPORADIC DESMOID-TYPE FIBROMATOSIS: A LITERATURE REVIEW AND FOCUS GROUP STUDY

M. Timbergen[1,2], L.V. van de Poll-Franse[3,4,5], D.J. Grünhagen[1], W.T. van der Graaf[6,7], S. Sleijfer[2], C. Verhoef[1], O. Husson[7]. [1] *Erasmus MC Cancer Institute, Department of Surgical Oncology, Rotterdam, Netherlands;* [2] *Erasmus MC Cancer Institute, Department of Medical Oncology, Rotterdam, Netherlands;* [3] *The Netherlands Cancer Institute, Division of Psychosocial Research and Epidemiology, Amsterdam, Netherlands;* [4] *Tilburg University, Department of Medical and Clinical Psychology, Tilburg, Netherlands;* [5] *Netherlands Comprehensive Cancer Organisation IKNL, Department of Research, Eindhoven, Netherlands;* [6] *Radboud University Medical Center, Department of Medical Oncology, Nijmegen, Netherlands;* [7] *Institute of Cancer Research and Royal Marsden NHS Foundation Trust., Division of Clinical Studies, London, United Kingdom*

Background Sporadic desmoid-type fibromatosis (DTF) is a rare, chronic, non-metastasizing, disease of the soft tissues. It is characterised by local invasive and unpredictable growth behaviour, and a high propensity of local recurrence after surgery thereby often having a great impact on health related quality of life (HRQL). This study aims to review currently used HRQL measures and to asses HRQL issues among DTF patients.

Material and methods Approval from the Medical Ethics Committee of Erasmus MC, Rotterdam, the Netherlands, was obtained for this study (file number MEC-2017-269). A mixed methods methodology was used consisting of (1) a systematic literature review to provide an overview of measures previously used to evaluate HRQL among DTF patients; (2) focus groups to gain insight into HRQL issues experienced by DTF patients.

Results The search strategy identified thirteen articles reporting HRQL measures using a wide variety of cancer-specific HRQL tools, functional scores, symptom scales (e.g. numerical rating scale) and single-item outcomes (e.g. pain and functional impairment). No DTF specific HRQL tool was found. Qualitative analysis of three focus groups (6 males, 9 females, aged 16-75 years) showed that participants emphasised the negative impact of DTF and/or its treatment on several HRQL domains. Six themes were identified: 1) diagnosis, 2) treatment, 3) follow-up and recurrence, 4) physical domain, 5) psychological and emotional domain and 6) social domain.

Conclusion A DTF-specific HRQL tool and consensus regarding the preferred measurement tool among DTF patients is lacking. Our study indicates that HRQL of DTF patients was negatively affected in several domains. A DTF-specific HRQL measure could improve our understanding of short- and long-term effects and, ideally, can be used in both clinic and for research purposes.

Conflict of interest: No conflict of interest.

Scientific Symposium
Breast Conserving Surgery and Locoregional Control After Neoadjuvant Chemotherapy

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MAGNETIC RESONANCE IMAGING FOR PREDICTION OF PATHOLOGIC RESPONSE TO NEOADJUVANT CHEMOTHERAPY IN TRIPLE-NEGATIVE BREAST CANCER

M. Golshan[1], S. Wong[1], S. Loibl[2], J.B. Huober[3], J. O'Shaughnessy[4], H.S. Rugo[5], N. Wolmark[6], M.D. McKee[7], D. Maag[8], D.M. Sullivan[8], O. Metzger-Filho[9], G. Von Minckwitz[10], C.E. Geyer[11], W.M. Sikov[12], M. Untch[13]. [1] *Dana-Farber/Brigham and Women's Hospital Cancer Centre, Surgical Oncology, Boston, USA;* [2] *German Breast Group- Centre for Haematology and Oncology Bethanien, Medical Oncology, Neu-Isenburg, Frankfurt, Germany;* [3] *Ulm University, Department of Gynecology and Obstetrics, Ulm, Germany;* [4] *Baylor University Medical Center, Medical Oncology, Dallas, USA;* [5] *University of California San Francisco Hellen Diller Family Comprehensive Cancer Center, Medicine, San Francisco, USA;* [6] *Allegheny General Hospital, General Surgery, Pittsburgh, USA;* [7] *AbbVie Inc., Global pharmaceutical R&D, North Chicago, USA;* [8] *AbbVie Inc., Oncology Development, North Chicago, USA;* [9] *Dana-Farber Cancer Institute, Medicine, Boston, USA;* [10] *German Breast Group- University Women's Hospital, Gynecology and Obstetrics, Neu-Isenburg, Frankfurt, Germany;* [11] *Virginia Commonwealth University Massey Cancer Center, Internal Medicine, Richmond, USA;* [12] *Women & Infants Hospital of Rhode Island, Medical Oncology, Providence, USA;* [13] *HELIOS Klinikum Berlin-Buch, Gynecology and Obstetrics, Berlin, Germany*

BACKGROUND: The ability of breast MRI to predict pathologic response to neoadjuvant chemotherapy varies across biological subtypes. We sought to determine how well breast MRI findings following initial treatment on the phase III BrighTNess trial correlated with pathologic response in patients with triple negative breast cancer (TNBC).

MATERIALS AND METHODS: We enrolled 634 patients with stage II-III TNBC, who received weekly paclitaxel x 12 (wP) +/-carboplatin (Cb) or Cb/veliparib (V), followed by 4 cycles of doxorubicin and cyclophosphamide, then surgery; imaging and pathologic response data were available for 519. In comparing breast MRIs performed prior to and following wP +/-Cb/V, MRI complete response (mCR) was defined as a disappearance of all target lesions and MRI partial response (mPR) as a $\geq$50% percent reduction in the largest tumor diameter. Pathologic complete response (pCR) was defined as the absence of residual invasive disease in the breast and axillary nodes (ypT0/isN0), while in non-pCRs, minimal residual disease was defined as residual cancer burden class I (RCB-I), calculated per the method of Symmans et al.

RESULTS: After wP (+/- Cb/V), mCR was demonstrated in 116 patients (22%), while 166 (32%) had mPR and 237 (46%) had stable or progressive disease (SD/PD). At surgery, pCR or pCR/RCB-I was demonstrated in 78% and 89% (mCR), 57% and 75% (mPR), and 36% and 50% (SD/PD), respectively. The positive predictive value (PPV), negative predictive value, and overall accuracy of the mid-treatment MRI for eventual pCR were 78%, 56%, and 61%, respectively. Accuracy did not differ significantly between *gBRCA* mutation carriers and non-carriers (52% vs. 63%, p=0.10). In multivariable analyses controlling for patient and tumor characteristics, lower clinical T stage (T1 vs. T2 or T3-4) was the only factor significantly associated with both mCR (p=0.003) and pCR (p=0.007). When compared to patients with SD/PD, those with mPR or mCR were 2.34 (95% CI 1.51-3.63) and 6.12 (95% CI 3.55-10.54) fold more likely to have pCR at surgery, and 3.35 (95% CI 2.07-5.41) and 7.73 (95% CI 4.02-14.89) fold more likely to have pCR/RCB-I at surgery. MRI response during neoadjuvant therapy was significantly associated with eligibility for breast-conserving surgery following completion of treatment (93.1% for mCR vs. 81.6% for SD/PD, p<0.001).

CONCLUSIONS: Complete response on MRI performed following the initial phase of treatment on BrighTNess had a PPV of 78% for demonstration of pCR after completion of neoadjuvant chemotherapy in patients with TNBC. However, a substantial proportion of patients with mPR or SD/PD also achieved pCR or RCB-I. Future studies are warranted to assess the role of imaging response during neoadjuvant chemotherapy to determine subsequent treatment and optimize surgical planning.

Conflict of interest ownership: Mark McKee, David Maag, Danielle Sullivan: Employed by AbbVie and may hold AbbVie stock or options.Advisory Board:Mehra Golshan: Consultant to AbbVie for steering committee.Sibylle Loibl: Received consultant honoraria from AbbVie. Jens Huober: Received speaker honoraria from AstraZeneca and consultant honoraria from Sanofi and AbbVie, Roche, Novartis, and Pfizer.Joyce O'Shaughnessy: Consultant or advisory role for Novartis, Pfizer, Lilly, Arno Therapeutics, AbbVie, AstraZeneca, Celgene, Nektar, Genentech/Roche, Eisai travel expenses from Celgene, Nektar, Lilly, Novartis, Pfizer, AbbVie Received honoraria from AstraZeneca, Lilly, AbbVie, Arno Therapeutics, Celgene, Nektar, Eisai, Novartis, Pfizer, Genentech/Roche. Hope S Rugo: Travel expenses from Novartis, Pfizer, Roche/Genentech, Puma and Mylan. Norman Wolmark: Consultant or on the advisory board (uncompensated) for Sanofi and Roche.Otto Metzger Filho: Consultant for Pfizer (uncompensated) travel from AbbVie honoraria from Grupo Oncoclinicas. Charles E. Geyer Jr.: Consultant/adviser for Celgene, Stemnion and Myriad Genetics travel expenses from AstraZeneca, AbbVie, and Genentech/Roche.William Sikov: Consultant to AbbVie reimbursed for time and expenses related to steering committee meetings Corporate-sponsored Research:Hope S Rugo: Research funding to the UC Regents from Plexxikon, Macrogenics, OBI Pharma, Eisai, Pfizer, Novartis, Lilly, GSK, Genentech, Celsion, Nektar, Merck.Otto Metzger Filho: Research funding from Pfizer, Genentech/Roche, Cascadian Therapeutics Eisai. Gunter von Minckwitz: Received