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Background: APBI has positioned itself as the standard treatment for patients over 50 years, with low risk of relapse criteria. The technique with the most evidence to date is HDR brachytherapy. With the intention of carrying out increasingly shorter treatments, the idea of very accelerated partial breast irradiation (VAPBI), arose. At present, there is very little evidence with sufficient follow-up of its results, both in terms of survival and safety.

Material and methods: To analyze the results of patients treated with VAPBI in a tertiary hospital with a median follow-up of 51 months, both in oncological results and in terms of toxicity. Patients who received this treatment underwent breast-conserving surgery ± SLNB, following the recommendations established by the European Society for Radiotherapy and Oncology, after knowing the definitive anatomic pathology report.

Treatment was in all cases outpatient. All patients received loco-regional anesthesia. The implant was placed guided by ultrasound and fluoroscopy, under optimal conditions of asepsis and antisepsis. Planning was performed with CT, with Oncentra[®] Brachy and a dose of 18 Gy was administered with an iridium 192 source.

Results: Between September 2014 and March 2021, a total of 97 patients with localized breast cancer were treated. The mean and median age was 62 years (49–81). 24 patients had intraductal carcinoma (DCIS) and the rest were infiltrating (73). Infiltrating duct carcinoma was the most frequent histology (56%), followed by infiltrating lobular carcinoma (4%). 48% were Luminal A, 15.46% Luminal B and 1% Her2- positive Luminal B, the rest were DCIS (20.8% g1, 25% g2 and 46% g3). One patient presented lymphovascular invasion. Regarding the infiltrating tumors, 51% were G1, 32% G2, and 3% G3. All patients with infiltrating carcinoma had T1 tumors, except one. The mean number of lymph nodes removed was 2 (0–14). Two patients received adjuvant chemotherapy, 5 tamoxifen, and 73 aromatase inhibitors. The median volume that received 18 Gy was 33cc (10.78–0.83), the median DHI was 0.71 (0.32–0.83).

Regarding acute toxicity, we found no g ≥3 toxicity. Three patients presented g2 pain, and one g2 epidermitis.

With a median follow-up of 51 months, none of the patients had g ≥3 toxicity. Four patients presented g2 pain, one patient was diagnosed of g2 fat necrosis and another patient of g2 fibrosis.

Regarding the cosmetic result, 86.59% presented good/very good, and 9% fair-bad.

Two patients relapsed locally (with DCIS, G3). With our data, local control is 97.4%, regional control 100% and distant control 98.9%, with an overall survival of 96%.

Conclusions: VAPBI at a fraction of 18 Gy is an effective and safe treatment in the short and long term.

No conflict of interest.

POSTER SESSION

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Rehabilitation/Survivorship

157 (PB-070)

Poster

The mediating effect of perceived injustice and pain catastrophizing in the relationship of pain on fatigue and sleep in breast cancer survivors: a cross-sectional study

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Background: Persistent pain is one of the most common sequelae among breast cancer survivors (BCS), seen in about one out of three. Recent insights and multidimensional aspects of pain have raised awareness about cognitive appraisals, such as perceived injustice (PI) and pain catastrophizing (PC). PI is defined as the tendency to blame others for one's suffering, interpret one's losses as severe and irreparable, and experience a sense of unfairness. PC is defined as the tendency to magnify or exaggerate the mental set during actual or anticipated painful experiences. It has been demonstrated that both maladaptive cognitions play an important role in patients' pain development, maintenance, and experience. However, the mediating effect of these appraisals has not been investigated in BCS yet, nor have they been related to fatigue and sleep.

Material and Methods: Cross-sectional data from 128 BCS were analyzed by structural path analysis with the aim to examine the mediating effect of PI and PC in the relationship of pain on fatigue and sleep. The pain was assessed with both the Visual Analogue Scale (VAS) and the Central Sensitization Inventory (CSI).

Results: The indirect mediating effects of PI on fatigue (CSI*PI = 0.21; $p < 0.01$ and VAS*PI = 1.19; $p < 0.01$) and sleep (CSI*PI = 0.31; $p < 0.01$ and VAS*PI = 1.74; $p < 0.01$) were found significant for both pain outcomes, CSI and VAS. On the other hand, PC only mediated the relationship between pain measured by VAS and fatigue (VAS*PC = 0.80; $p = 0.03$). Positive associations were found, indicating that higher pain levels are positively correlated with PI and PC, which go with higher levels of fatigue and sleep problems.

Conclusions: PI is an important mediator in the relationship of pain on fatigue and sleep, and PC as a mediator on fatigue after cancer treatment. These findings highlight the fact that both appraisals are understudied but also open new perspectives regarding treatment strategies in BCS. The results of our study warrant replication across longitudinal studies to clarify the dissimilarities with other study findings and continue to expand upon the evidence of the multifactorial nature of pain coping.

No conflict of interest.

158 (PB-071)

Poster

Home-monitoring of cancer-related fatigue in breast cancer patients

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Background: There is a growing group of women who experience long-term effects of cancer and its treatment. Cancer-related fatigue (CRF) is the most reported health problem, which can lead to a significant decrease in quality of life. On average, CRF treatments are effective, but not for all patients. Holistic monitoring of fatigue severity and impact of fatigue on quality of life and social participation of the individual patient is needed to find the most beneficial personalized treatment. Therefore, the aims are 1) to determine relevant domains of the holistic patient profile and 2) to develop a holistic home-monitoring toolkit that allows personal treatment advice for CRF.

Materials and methods: Semi-structured online interviews with fourteen healthcare professionals from different disciplines working with cancer patients and four group interviews with breast cancer patients from four clinical institutions were held. The (group)interviews were coded using a thematic analysis approach (TAA). Next, a funnel approach was used to develop the toolkit, see Table 1.

1. Relevant domains based on TAA
2. Literature; methods to assess the content of the relevant domains
3. Assessment of methods using expert judgment
4. Consultation of patient advocates

Methods: Considered for each of the domains and onboarding were wearables, apps and experiences sampling methods, if validated in Dutch and with breast cancer patients. Where applicable, questions using Likert scales were selected using the highest discrimination parameter value in order to use questions with typically the highest information function. Usability was assessed with a thinking-aloud method with ten breast cancer patients.

Results: Following the (group)interviews and TAA, the relevant identified domains were CRF dimensions (physical, cognitive, and emotional), limitation in functioning (social, relational, and work), day pattern (including activity and sleep), and coping style. The toolkit consists of a selection of questions and wearables to assess the health status of the patients, split over onboarding questions which subsequently link to relevant deepening

domains. Over time, the onboarding will be repeated to take possible changes into account. The toolkit was easy to use by 90% of the patients.

Conclusion: A first holistic home-monitoring toolkit for CRF was developed consisting of an onboarding questionnaire which indicate which of the four domains will provide the best information for a personal CRF treatment advice and monitor the health status of patients over time. In the future we aim to integrate the toolkit in a personal health environment to ensure easy access and to enable sharing collected home-monitoring data and treatment advice with relevant healthcare professionals.

No conflict of interest.

159 (PB-072)

Poster

Impact of lymphedema on health-related quality of life in early-stage breast cancer patients treated breast conserving therapy with or without sentinel lymph node biopsy: 2-year results from the randomized controlled trial BOOG2013–08

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Background: The BOOG 2013-08 study examined non-inferiority of omission of the sentinel lymph node biopsy (SLNB) in clinically node negative cT1-2 breast cancer patients treated with breast conserving therapy (NCT02271828).¹ This study explores whether omission of the SLNB results in a significant decrease in axillary morbidity rate and improved health-related QoL (HRQoL) at 6- 12- and 24 months post-surgery.

Material and methods: The BOOG 2013-08 study enrolled 1736 patients between 2015 and 2022 who were randomized to SLNB or follow-up. A subgroup of 1055 participants were used for analysis.

Results: There were no statistical significant differences in patient characteristics or clinical relevant difference in lymphedema- or HRQoL scores at baseline between the groups. Table 1 displays lymphedema- and HRQoL scores. Both treatment groups experienced comparable axillary morbidity scores over time with no significant difference between the groups, with the exception of the domains 'total-', and 'physical function' at 6- and 12 months, and at the domain 'mobility' at 12 months, in favour of the group treated without SLNB.

Conclusion: The impact of omission of the SLNB on axillary morbidity, and consequently on HRQoL, is less than expected, and does not translate in a statistical or clinical relevant difference. A potential explanation for the similar scores could be found in radiotherapy. Additional radiotherapy data are currently being reviewed to explore this possibility.

No conflict of interest.

160 (PB-073)

Poster

Perceived injustice in cancer survivors: an exploration and a population-specific cut-off score

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Background: In the survival stage after cancer, fatigue and pain are the most occurring side effects. Both impact cancer survivors' daily life and quality of life. New insights recently showed that perceived injustice might play a

Table (abstract: 159 (PB-072)): Lymphedema- and HRQoL scores

	Baseline		6 months		P value	12 months		P value	24 months		P value
	BCT + SLNB N =	BCT without SLNB N =	BCT + SLNB N =	BCT without SLNB N =		BCT + SLNB N =	BCT without SLNB N =		BCT + SLNB N =	BCT without SLNB N =	
Lymph- ICF											
Domain scores*											
Total	6%	6%	14%	12%	.015	14%	11%	.007	14%	13%	.234
Physical function	3%	4%	11%	8%	<.001	13%	9%	<.001	12%	10%	.112
Mental function	7%	7%	11%	8%	.102	13%	10%	.051	13%	12%	.484
Mobility domain	8%	8%	18%	16%	.255	17%	14%	.026	17%	15%	.452
EORTC QLQ C30											
Global Health**	79.9	79.5	74.0	74.0	1.000?	76.1	77.9	.275	77.1	76.9	.875
Functioning scales**											
Physical	91.9	91.1	86.1	86.4	.778	84.9	86.7	.161	85.4	86.1	.477
Emotional	77.3	77.4	79.7	80.4	.620	79.1	80.5	.387	78.5	79.0	.787
Cognitive	88.7	89.1	80.5	81.9	.411	79.8	81.8	.258	80.8	81.3	.788
EORTC BR23											
Symptom scales/ items***											
Breast symptoms	8.0	8.1	23.6	21.3	.083	21.6	18.5	.028	17.5	16.1	.321
Arm symptoms	5.1	4.9	13.3	11.0	.060	13.1	9.3	.001	12.1	11.44	.669

*Higher score indicates more impairments in function, activity limitations and participation restrictions due to arm lymphedema.

**Higher score indicates better functioning.

***Higher score indicates more symptoms.