Quality of life in women after breast biopsy with a benign result

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Background:

Standard of care for the diagnosis of malign and benign breast tumors is a minimally invasive biopsy in cases of imaging-classified BIRADS IVa and higher. This biopsy can be performed as a core cut biopsy or vacuum assisted biopsy and may be guided by sonography, mammography or MRI. The majority of biopsies are core cut biopsies guided by sonography. Whereas in cases of malign results patients in certified breast cancer centers are counseled by psychooncologists, patients with benign results are often informed in phone calls and without focus on their fears and psychological well-being. In this analysis we present data regarding the impact of breast biopsies with a benign result on patients' quality of life.

Methods:

Patients who had a core cut biopsy guided by ultrasound with a benign histological result between January 2021 and December 2023 were identified in our database. All patients received a written invitation to take part in the analysis, a questionnaire and an informed consent form. Patients who returned the questionnaire and the informed consent form were included in this analysis. The instrument we used for measuring quality of life is the short form health survey SF-36v2® (QualityMetric Inc., Johnston, USA) that contains 36 items used to measure eight domains of health-related quality of life. These parameters are compared with normative data from the QualityMetric 2009 General Population Sample

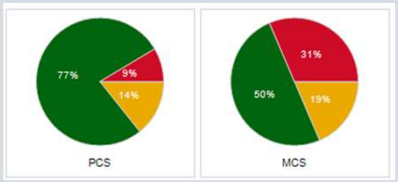
Table 1: Patient characteristics

	n	%
Age in years		
18-24	2	2.9 %
25-34	3	4.3 %
35-44	8	11.4 %
45-54	24	34.3 %
55-64	15	21.4 %
65-74	13	18.6 %
75+	5	7.1 %
Educational qualification		
High school diploma	33	47.1 %
Secondary education	21	30.0 %
No secondary education	16	22.9 %
BI-RADS		
1	1	1.4%
2	29	41.4%
3	28	40.0%
4a	30	42.9%
4b	5	7.2%
4c	1	1.4%

Results:
241 patients were identified who had undergone a core cut biopsy with a benign result between 2021 and 2023, 70 patients agreed to participate, submitted the questionnaire and were included in this analysis. In all eight domains of health-related quality of life the results of the study population were in the category „same or better" compared with the general population: physical functioning 84%, role limitations due to physical health 76%, bodily pain 73%, general health perceptions 74%, vitality 71%, social functioning 67%, role limitations due to emotional problems 67% and mental health 61%.

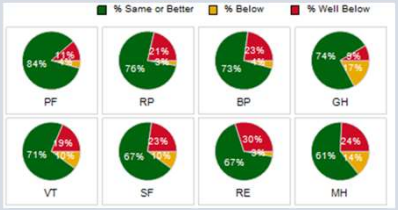
Figure 1 and 2: Percentages compared to General Population Sample (green: same or better, yellow: below, red: well below)

Figure 1



PCS: Physical component summery
MCS: Mental component summary

Figure 2:



PF: Physical functioning, RP: Pole physical, BP: Bodily pain
GH: General health, VT: Vitality, SF: Social functioning
RE: Role emotional, MH: Mental health

Conclusions:
We conducted a hypothesis generating analysis regarding the impact of a breast biopsy with a benign result on quality of life. We observed that all eight investigated domains of health-related quality of life were comparable or better than in the general population. Although this result may need validation in a prospective analysis it seems very improbable that the breast biopsy itself has a negative impact on quality of life. This result could help increase the acceptance and reduce fears regarding the conduct of breast biopsy if indicated.

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