

Table SI. Specific interventions of the low- and high-intensity physical exercise.

Component	Specific interventions
Low-intensity physical exercise	
Relaxation sessions	The participants lay on mats with pillows and blankets and are instructed to tense and relax major muscle groups, working from head to foot.
Body awareness and restorative exercise	1. The first session is dedicated to stretching. 2. The second session focuses on respiration. 3. The third session focuses on postural awareness and movement re-education.
Massage	Massage was relaxing, facilitative or therapeutic, including scar tissue massage.
High-intensity physical exercise	
Warm-up exercises	The warm-up consisted of dynamic exercises with the large muscle groups, along with balance and coordination exercise.
Resistance exercise	The one-repetition maximum test was used to determine the weight a patient was able lift once on any specific machine. The weight was expressed as 100% of the patient's strength and an exercise program was then developed based on that measure.
Cardiovascular exercise	Cardiovascular exercise involved interval training on stationary bicycles with a workload of 70-250 W, equivalent to 85-95% of each participant's maximum heart rate.

Table SII. Hospital Anxiety and Depression Scale questionnaire.

Tick the box beside the reply that is closest to how you have been feeling in the past week. Don't take too long over you replies-your immediate answer is best.

D	A		D	A
		I feel tense or 'wound up':		I feel as if I am slowed down:
	3	Most of the time	3	Nearly all the time
	2	A lot of the time	2	Very often
	1	From time to time, occasionally	1	Sometimes
	0	Not at all	0	Not at all
		I still enjoy the things I used to enjoy:		I get a sort of frightened feeling like 'butterflies' in the stomach:
0		Definitely as much	0	Not at all
1		Not quite so much	1	Occasionally
2		Only a little	2	Quite Often
3		Hardly at all	3	Very Often
		I get a sort of frightened feeling as if something awful is about to happen:		I have lost interest in my appearance:
	3	Very definitely and quite badly	3	Definitely
	2	Yes, but not too badly	2	I don't take as much care as I should
	1	A little, but it doesn't worry me	1	I may not take quite as much care
	0	Not at all	0	I take just as much care as ever
		I can laugh and see the funny side of things:		I feel restless as I have to be on the move:
0		As much as I always could	3	Very much indeed
1		Not quite so much now	2	Quite a lot
2		Definitely not so much now	1	Not very much
3		Not at all	0	Not at all
		Worrying thoughts go through my mind:		I look forward with enjoyment to things:
	3	A great deal of the time	0	As much as I ever did
	2	A lot of the time	1	Rather less than I used to
	1	From time to time, but not too often	2	Definitely less than I used to
	0	Only occasionally	3	Hardly at all
		I feel cheerful:		I get sudden feelings of panic:
3		Not at all	3	Very often indeed
2		Not often	2	Quite often
1		Sometimes	1	Not very often
0		Most of the time	0	Not at all
		I can sit at ease and feel relaxed:		I can enjoy a good book or radio or TV program:
	0	Definitely	0	Often
	1	Usually	1	Sometimes
	2	Not Often	2	Not often
	3	Not at all	3	Very rarely

Please check you have answered all the questions.

Scoring:

Total score:

Depression rating: 0-7, Normal; 8-10, Borderline abnormal (borderline case); 11-21, Abnormal (case).

Table SIII. EORTC QLQs.

## A. EORTC QLQ-C30 (version 3).

We are interested in some things about you and your health. Please answer all of the questions yourself by circling the number that best applies to you. There are no 'right' or 'wrong' answers. The information that you provide will remain strictly confidential.

Please fill in your first initial:

Your birth date (Day, Month, Year):

Today's date (Day, Month, Year):

Questions	Not at all	A little	Quite a bit	Very much
1. Do you have any trouble doing strenuous activities, like carrying a heavy shopping bag or a suitcase?	1	2	3	4
2. Do you have any trouble taking a long walk?	1	2	3	4
3. Do you have any trouble taking a short walk outside of the house?	1	2	3	4
4. Do you need to stay in bed or a chair during the day?	1	2	3	4
5. Do you need help with eating, dressing, washing yourself or using the toilet?	1	2	3	4

During the past week	Not at all	A little	Quite a bit	Very much
6. Were you limited in doing either your work or other daily activities?	1	2	3	4
7. Were you limited in pursuing your hobbies or other leisure time activities?	1	2	3	4
8. Were you short of breath?	1	2	3	4
9. Have you had pain?	1	2	3	4
10. Did you need to rest?	1	2	3	4
11. Have you had trouble sleeping?	1	2	3	4
12. Have you felt weak?	1	2	3	4
13. Have you lacked appetite?	1	2	3	4
14. Have you felt nauseated?	1	2	3	4
15. Have you vomited?	1	2	3	4

During the past week	Not at all	A little	Quite a bit	Very much
16. Have you been constipated?	1	2	3	4
17. Have you had diarrhea?	1	2	3	4
18. Were you tired?	1	2	3	4
19. Did pain interfere with your daily activities?	1	2	3	4
20. Have you had difficulty in concentrating on things, like reading a newspaper or watching television?	1	2	3	4
21. Did you feel tense?	1	2	3	4
22. Did you worry?	1	2	3	4
23. Did you feel irritable?	1	2	3	4
24. Did you feel depressed?	1	2	3	4
25. Have you had difficulty remembering things?	1	2	3	4
26. Has your physical condition or medical treatment interfered with your family life?	1	2	3	4
27. Has your physical condition or medical treatment interfered with your social activities?	1	2	3	4
28. Has your physical condition or medical treatment caused you financial difficulties?	1	2	3	4

For the following questions please circle the number between 1 and 7 that best applies to you:

29. How would you rate your overall health during the past week?	1	2	3	4	5	6	7
Very poor							Excellent
30. How would you rate your overall quality of life during the past week?	1	2	3	4	5	6	7
Very poor							Excellent

Table SIII. Continued.

## B. EORTC QLQ-CX24

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems, please answer by circling the number that best applies to you.

During the past week	Not at all	A little	Quite a bit	Very much
31. Have you had cramps in your abdomen?	1	2	3	4
32. Have you had difficulty in controlling your bowels?	1	2	3	4
33. Have you had blood in your stools (motions)?	1	2	3	4
34. Did you pass water/urine frequently?	1	2	3	4
35. Have you had pain or a burning feeling when passing water/urinating?	1	2	3	4
36. Have you had leaking of urine?	1	2	3	4
37. Have you had difficulty emptying your bladder?	1	2	3	4
38. Have you had swelling in one or both legs?	1	2	3	4
39. Have you had pain in your lower back?	1	2	3	4
40. Have you had tingling or numbness in your hands or feet?	1	2	3	4
41. Have you had irritation or soreness in your vagina or vulva?	1	2	3	4
42. Have you had discharge from your vagina?	1	2	3	4
43. Have you had abnormal bleeding from your vagina?	1	2	3	4
44. Have you had hot flushes and/or sweats?	1	2	3	4
45. Have you felt physically less attractive as a result of your disease or treatment?	1	2	3	4
46. Have you felt less feminine as a result of your disease or treatment?	1	2	3	4
47. Have you felt dissatisfied with your body?	1	2	3	4

During the past 4 week:	Not at all	A little	Quite a bit	Very much
48. Have you worried that sex would be painful?	1	2	3	4
49. Have you been sexually active?	1	2	3	4

Answer these questions only if you have been sexually active during the past 4 weeks:	Not at all	A little	Quite a bit	Very much
50. Has your vagina felt dry during sexual activity?	1	2	3	4
51. Has your vagina felt short?	1	2	3	4
52. Has your vagina felt tight?	1	2	3	4
53. Have you had pain during sexual intercourse or other sexual activity?	1	2	3	4
54. Was sexual activity enjoyable for you?	1	2	3	4

## C. EORTC QLQ-OV28 (subscale)

During the past 4 weeks:	Not at all	A little	Quite a bit	Very much
55. Did you have a bloated feeling in your abdomen/stomach?	1	2	3	4
56. Were you troubled by passing wind/gas/flatulence?	1	2	3	4
57. Have you lost any hair?	1	2	3	4
58. Answer this question only if you had any hair loss: Were you upset by the loss of your hair?	1	2	3	4
59. Did food and drink taste different from usual?	1	2	3	4
60. Have you had tingling hands or feet?	1	2	3	4
61. Have you had numbness in your fingers or toes?	1	2	3	4
62. Have you felt weak in your arms or legs?	1	2	3	4
63. Did you have aches or pains in your muscles or joints?	1	2	3	4
64. Did you have problems with hearing?	1	2	3	4

EORTC, European Organization for Research and Treatment of Cancer; QLQ, quality of life questionnaire.

Table SIV. Effect of IPCP intervention on anxiety, depression and QoL score.

Scores	Baseline (M0)	M1	M3	M6	Change (M6-M0)
HADS-anxiety					
IPCP	5.9±3.1	5.9±3.0	5.9±3.0	6.0±3.0	0.1±2.3
Control	5.8±3.4	5.8±3.5	6.0±3.3	6.1±3.8	0.3±2.3
P-value	0.724	0.933	0.876	0.708	0.289
HADS-depression					
IPCP	6.4±3.6	6.5±3.2	6.3±3.1	6.0±3.6	-0.4±2.1
Control	6.4±4.0	6.6±3.9	6.7±3.9	7.0±4.1	0.6±2.4
P-value	0.928	0.759	0.364	0.041	<0.001
QLQ-C30 global health status					
IPCP	63.7±14.5	63.2±15.3	64.8±17.4	65.8±19.1	2.1±13.1
Control	62.9±15.8	60.3±16.3	61.5±18.3	61.2±19.6	-1.7±17.4
P-value	0.632	0.109	0.111	0.040	0.035
QLQ-C30 functions					
IPCP	70.0±16.5	70.3±17.4	71.4±18.0	73.8±15.5	3.9±10.9
Control	69.9±18.9	70.2±18.5	71.5±16.5	71.9±18.5	2.0±9.7
P-value	0.992	0.954	0.984	0.324	0.105
QLQ-C30 symptoms					
IPCP	33.3±16.9	33.8±15.7	33.0±16.3	32.8±15.0	-0.5±13.5
Control	30.9±14.9	34.3±15.6	35.1±16.1	35.8±16.7	4.9±15.5
P-value	0.188	0.783	0.275	0.110	0.002

Values are expressed as the mean ± standard deviation. Comparison was performed using the t-test. IPCP, incremental patient care program; M, month; HADS, Hospital Anxiety and Depression Scale; EORTC QLQ-C30, European Organization for Research and Treatment of Cancer QoL Questionnaire; QoL, quality of life.

Table SV. Effect of IPCP intervention on anxiety and depression rate at 6 months.

Item	IPCP group	Control	P-value
HADS anxiety status			0.070
None	106 (71.2)	99 (66.4)	
Light	37 (24.8)	33 (22.1)	
Moderate	6 (4.0)	13 (8.7)	
Severe	0 (0.0)	4 (2.7)	
HADS depression status			0.037
None	96 (64.4)	87 (58.4)	
Light	32 (21.5)	28 (18.8)	
Moderate	21 (14.1)	27 (18.1)	
Severe	0 (0.0)	7 (4.7)	

Values are expressed as n (%). Comparison was performed using the Chi-square test. IPCP, incremental patient care program; HADS, Hospital Anxiety and Depression Scale.

Table SVI. Change of anxiety, depression and QoL score in subgroups by TNM stage.

Score change (M6-M0)	TNM stage II (n=158)	TNM stage III (n=140)
HADS-anxiety		
IPCP	0.2±2.2	-0.1±2.5
Control	0.4±2.2	0.2±2.3
P-value	0.464	0.521
HADS-depression		
IPCP	-0.4±2.0	-0.3±2.1
Control	0.7±2.4	0.4±2.4
P-value	0.002	0.054
QLQ-C30 global health status		
IPCP	1.4±13.9	2.7±12.4
Control	-1.4±17.0	-2.1±18.0
P-value	0.264	0.065
QLQ-C30 functions		
IPCP	2.6±11.2	5.1±10.6
Control	1.6±9.6	2.4±9.9
P-value	0.544	0.129
QLQ-C30 symptoms		
IPCP	-0.3±16.0	-0.6±10.9
Control	4.6±15.2	5.3±16.0
P-value	0.050	0.010

Values are expressed as the mean ± standard deviation. Comparison was performed using the t-test. IPCP, incremental patient care program; M, month; HADS, Hospital Anxiety and Depression Scale; EORTC QLQ-C30, European Organization for Research and Treatment of Cancer Quality of Life Questionnaire; TNM, tumor-nodes-metastasis.

Table SVII. Correlations among HADS-anxiety score, HADS-depression score and QLQ-C30 scores at M0 and M6.

Correlation	Baseline (M0)		M6	
	r	P-value	r	P-value
HADS-anxiety vs. QLQ-C30 global health status				
Total	0.083	0.155	0.070	0.227
IPCP	0.086	0.299	0.049	0.552
Control	0.079	0.337	0.092	0.263
HADS-anxiety vs. QLQ-C30 functions				
Total	-0.106	0.069	-0.049	0.403
IPCP	-0.185	0.024	-0.109	0.184
Control	-0.043	0.600	-0.007	0.933
HADS-anxiety vs. QLQ-C30 symptoms				
Total	0.080	0.168	0.033	0.571
IPCP	0.026	0.752	0.036	0.664
Control	0.134	0.103	0.028	0.736
HADS-depression vs. QLQ-C30 global health status				
Total	0.035	0.544	0.038	0.516
IPCP	0.028	0.737	0.050	0.546
Control	0.041	0.617	0.055	0.505
HADS-depression vs. QLQ-C30 functions				
Total	-0.111	0.055	-0.047	0.415
IPCP	-0.155	0.059	0.069	0.401
Control	-0.077	0.348	-0.123	0.136
HADS-depression vs. QLQ-C30 symptoms				
Total	0.086	0.138	0.066	0.253
IPCP	0.018	0.828	0.140	0.090
Control	0.156	0.057	-0.010	0.903

Correlation was determined by Pearson correlation analysis. IPCP, incremental patient care program; M, month; HADS, Hospital Anxiety and Depression Scale; EORTC QLQ-C30, European Organization for Research and Treatment of Cancer Quality of Life Questionnaire.