

### Bilaga 5 Tabell över inkluderade studier/Appendix 5 Table over included studies

1 (11)

<b>Botla 2020, reference [49]</b>	
Conflict of interest	Not stated.
Study protocol	PACTR201901640930094
Study design	RCT
Country	Egypt
Study period	February 2019 to April 2019
Recruitment	Outpatient clinic of the obstetrics department at a university hospital.
Setting	Not stated.
Inclusion criteria	Women with IRD >25 mm, aged 25 to 35 years, parity 2 to 4 times, with a normal delivery, BMI not exceeding 30 kg/m <sup>2</sup> , waist-to-hip ratio >0.85.
N randomised	36
Baseline characteristics	Age (yr.), mean (SD): I1 = 29.55 (3.55), I2 = 29.11 (3.54) BMI (kg/m <sup>2</sup> ), mean (SD): I1 = 28.73 (1.5), I2 = 28.66 (1.34) IRD (cm), mean (SD): I1 = 27.55 (2.14), I2 = 27.27 (1.44) Parity (times), mean (SD): I1 = 2.91 (0.71), I2 = 2.84 (0.74)
Analysis	Intention to treat not stated, analysis using mixed MANOVA.
Missing data	I1: 0 I2: 0
Note	Outcomes reported but not included: waist-to-hip ratio. Information on missing data provided in correspondence with author.
<b>Treatment groups</b>	
<b>Treatment group</b>	<b>I1: NMES + abdominal exercises</b>
Treatment	Neuromuscular electrical stimulation (NMES). Russian current stimulation for 10 min every other day for 6 weeks, in addition to abdominal exercises as described for I2.
Allocated participants	18
<b>Treatment group</b>	<b>I2: Abdominal exercises</b>
Treatment	Abdominal exercise sessions for 30 min three times per week for 6 weeks. The exercise program consisted of static abdominal contraction, posterior pelvic tilt, sit-up exercise, reverse sit-up exercise, and reverse trunk twist exercise. 20 repetitions per exercise. Instructed to practice the same exercise program at home.
Allocated participants	18

<b>Study outcomes</b>	
<b>Outcome domain</b>	<b>DRAM physiology</b>
<b>Outcome</b>	<b>Inter-recti distance</b>
Results	<p><b>Baseline (mm), mean (SD)</b>  I1: 27.55 (2.14)  I2: 27.27 (1.44)  p-value = 0.65</p> <p><b>End-of-treatment (mm), mean (SD)</b>  I1: 12.05 (1.55)  I2: 14.44 (2.06)  p-value = 0.001</p>
Note	IRD measured by ultrasound midway between the umbilicus and xiphoid process.
<b>Outcome domain</b>	<b>Physical function</b>
<b>Outcome</b>	<b>Objective measurement of abdominal wall strength</b>
Results	<p><b>Baseline, mean (SD)</b>  Peak torque (N/m): I1 = 28.47 (2.31), I2 = 28.58 (2.2)  Maximum repetition total work (J): I1 = 20.5 (2.7), I2 = 19.83 (2.3)  Average power (W): I1 = 19.44 (1.86), I2 = 19.01 (1.91)  Endurance (repetitions): I1 = 24.66 (2.44), I2 = 24.44 (2.06)</p> <p><b>End-of-treatment, mean (SD)</b>  Peak torque (N/m): I1 = 43.55 (4.4), I2 = 38.33 (2.27), p-value = 0.001  Maximum repetition total work (J): I1 = 30.16 (3.82), I2 = 25.66 (2.65), p-value = 0.001  Average power (W): I1 = 29.57 (1.57), I2 = 26.12 (2.32), p-value = 0.001  Endurance (repetitions): I1 = 38.38 (3.8), I2 = 30.05 (1.86), p-value = 0.001</p>
Note	Differences between groups at baseline were not statistically significant (p>0.05). Peak torque, maximum repetition total work and average power measured using a dynamometer. Abdominal endurance was assessed using a curl-up test.
<b>Outcome domain</b>	<b>Symptoms</b>
<b>Outcome</b>	<b>Body Appreciation Scale (BAS)</b>
Results	<p><b>Baseline, mean (SD)</b>  I1: 2.71 (0.4)  I2: 2.62 (0.43)  p-value = 0.55</p> <p><b>End-of-treatment, mean (SD)</b>  I1: 3.66 (0.3)  I2: 2.95 (0.28)  p-value = 0.001</p>
Note	Body Appreciation Scale (BAS) range 1 to 5 with higher scores indicating greater body appreciation.
<b>Emanuelsson 2014, reference [51] [52] [53]</b>	
Conflict of interest	No conflict of interest declared. Study supported by the Stockholm County Council.
Study protocol	NCT01586741 (2009/227-31/3/PE/96)
Study design	RCT
Country	Sweden
Study period	December 2009 to December 2012
Recruitment	Patients referred to the Dept. of Reconstructive Plastic Surgery or the Centre for Surgical Gastroenterology at Karolinska University Hospital, Sweden.

Setting	University Hospital; home-based training program.
Inclusion criteria	Patients older than 18 years with a DRAM $\geq 3$ cm. Patients had discomfort and/or abdominal tenderness and a history of functional disabilities, such as back pain, discomfort, and pain from the abdomen, or symptoms of weakness of the abdominal girdle. For women at least 1 pregnancy. A wish to have abdominal wall reconstruction.
N randomised	89
Baseline characteristics	Age (yrs.), Median (Range): I1 = 42.0 (27.0 to 62.0), I2 = 39.6 (29.0 to 61.0), I3 = 44.2 (28.9 to 66.9) Sex (n): Female 87, Male 2 (I1 = 1 and I2 = 1) BMI (kg/m <sup>2</sup> ), Median (Range): I1 = 23.0 (18.0 to 30.0), I2 = 23.0 (18.0 to 31.0), I3 = 22.8 (18.0 to 30.0) Parity (times), Median (Range): I1 = 2.0 (1.0 to 7.0), I2 = 2.0 (2.0 to 4.0), I3 = 2.4 (1.0 to 5.0) IRD1 (cm), Median (Range): I1 = 4.0 (0 to 7.0), I2 = 4.0 (2.0 to 6.0), I3 = 4.3 (1.5 to 9.0) IRD2 (cm), Median (Range): I1 = 3.2 (0.5 to 6.0), I2 = 4.0 (0 to 5.5), I3 = 3.6 (1.5 to 7.0)
Analysis	Intention to treat
Missing data	3-month follow-up: I1 = 0 of 29, I2 = 0 of 28, I3 = 2 of 32 1-year follow-up: I1 = 0 of 29, I2 = 1 of 28 5-year follow-up: I1 = 1 of 29, I2 = 4 of 28 No imputation of missing data.
Note	3-month follow-up corresponds to end-of-treatment for I3. I3 only followed for 3 months. The primary outcome was recurrence for I1 and I2 at 1 year. Two measures of IRD presented at baseline: IRD1 halfway between umbilicus and xiphoid process, IRD2 halfway between umbilicus and pubic symphysis. The time since surgery at 5-year follow-up ranged between 3.8 and 6.5 years. Outcomes reported but not included: BMI and waist circumference.

### Treatment groups

Treatment group	I1: Surgery – Mesh
Treatment	Retromuscular placement of a lightweight polypropylene mesh without lateral fixation. Closure of anterior rectus fascia with slowly absorbed 2/0 polydioxanone suture.
Allocated participants	29
Treatment group	I2: Surgery – Quill suture
Treatment	Dual closure of the anterior rectus fascia with slowly absorbed 2/0 polydioxanone Quill self-retaining sutures.
Allocated participants	28
Treatment group	I3: Physiotherapy – Abdominal exercises
Treatment	Abdominal exercise program targeting rectus, oblique and transverse abdominal muscles. Participants were instructed to perform the exercises 3 times per week for 3 months.
Allocated participants	32

### Study outcomes

Outcome domain	Adverse effects
Outcome	Complications following surgery
Results	<b>3 months after surgery</b> I1 (n, %) Wound infection 9 (31%) Seroma 5 (17%) Haematoma 2 (7%)

Any complication 13  
 I2 (n, %)  
 Wound infection 5 (18%)  
 Seroma 4 (14%)  
 Haematoma 0 (0%)  
 Any complication 9

#### 1 year after surgery

Renewed surgery due to pain, discomfort and swelling caused by encapsulated seroma (n, %): I1 = 2 (7%), I2 = 3 (11%)

#### 5 years after surgery

Satisfied with aesthetic outcome (n, %): I1 = 11 (39%), I2 = 7 (29%)

Note Not reported for I3. No statistically significant difference between groups reported (p-value >0.05).

#### Outcome domain

#### DRAM physiology

#### Outcome

#### Recurrence of DRAM

#### Results

#### 3 months after surgery (n, %)

I1 = 0 of 29 (0%)

I2 = 1 of 28 (4%)

#### 12 months after surgery (n, %)

I1 = 0 of 29 (0%)

I2 = 0 of 28 (0%)

#### 5 years after surgery (n, %)

I1 = 0 of 28 (0%)

I2 = 0 of 24 (0%)

Note The definition of recurrence was an IRD >3 cm. At 12 months after surgery recurrence was assessed by CT scan.  
 The patient with relapse at 3 month was excluded from further follow-up.

#### Outcome domain

#### HRQoL

#### Outcome

#### SF-36 (8 subscales)

#### Results

#### Baseline

Authors report statistically significant differences between I1 and I2 for the General health, Vitality and Mental health at baseline (p<0.05).  
 No statistically significant differences were reported for the Physical function, Physical role functioning, Bodily pain, Social functioning and Emotional role functioning subscales.

#### 12 months after surgery

Authors report statistically significant higher scores for I1 than I2 for the General health, Vitality and Mental health subscales at 12 months follow-up (p<0.05).

No statistically significant differences were reported for the Physical function, Physical role functioning, Bodily pain, Social functioning and Emotional role functioning subscales.

#### 5 years after surgery

Authors report that SF-36 mental component score (MCS) was significantly higher for I1 than I2 at 5-year follow-up (p=0.002), no statistically significant difference was seen for physical component score (PCS) (p=0.867).

Note No statistically significant difference between I1 and I2 at 3 months following surgery reported.  
 Combined results reported for I1 and I2 at 3 months after surgery. Data only reported in diagram. Higher scores on the SF-36 form indicate a better outcome.

#### Outcome domain

#### Physical function

#### Outcome

#### Ventral Hernia Pain Questionnaire (VHPQ)

#### Results

#### Baseline (n)

Pain right now ( $\leq 1$ ): I1 = 22; I2 = 21; I3 = 19

Pain right now (>1): I1 = 6, I2 = 7, I3 = 11

Pain last week (>1): I1 = 11, I2 = 12, I3 = 20  
 Difficulty rising from chair: I1 = 1, I2 = 3, I3 = 6  
 Difficulty sitting: I1 = 2, I2 = 7, I3 = 6  
 Difficulty standing: I1 = 1, I2 = 6, I3 = 13  
 Difficulty climbing the stairs: I1 = 2, I2 = 6, I3 = 13  
 Difficulty driving a car: I1 = 1, I2 = 0, I3 = 2  
 Difficulty performing sports/physical activity: I1 = 12, I2 = 13, I3 = 15

### 3 months after surgery/at the end of the training program (n)

Pain right now ( $\leq 1$ ): I1 = 24, I2 = 20, I3 = 16  
 Pain right now (>1): I1 = 5, I2 = 8, I3 = 12  
 Pain last week (>1): I1 = Not reported, I2 = Not reported, I3 = 15  
 Difficulty rising from chair: I1 = 1, I2 = 3, I3 = 4  
 Difficulty sitting: I1 = 2, I2 = 4, I3 = 3  
 Difficulty standing: I1 = 0, I2 = 3, I3 = 3  
 Difficulty climbing the stairs: I1 = 0, I2 = 3, I3 = 0  
 Difficulty driving a car: I1 = 1, I2 = 1, I3 = 1  
 Difficulty performing sports/physical activity: I1 = 8, I2 = 9, I3 = 6

### 12 months after surgery (n)

Pain right now ( $\leq 1$ ): I1 = 24, I2 = 26  
 Pain right now (>1): I1 = 5, I2 = 1  
 Pain last week (>1): I1 = 4, I2 = 1  
 Difficulty rising from chair: I1 = 0, I2 = 1  
 Difficulty sitting: I1 = 2, I2 = 0  
 Difficulty standing: I1 = 2, I2 = 0  
 Difficulty climbing the stairs: I1 = 0, I2 = 0  
 Difficulty driving a car: I1 = 2, I2 = 0  
 Difficulty performing sports/physical activity: I1 = 6, I2 = 3

### 5 years after surgery (n)

Pain right now ( $\leq 1$ ): I1 = 25, I2 = 23  
 Pain right now (>1): I1 = 3, I2 = 1  
 Pain last week (>1): I1 = 3, I2 = 1  
 Difficulty rising from chair: I1 = 0, I2 = 0  
 Difficulty sitting: I1 = 1, I2 = 2  
 Difficulty standing: I1 = 1, I2 = 1  
 Difficulty climbing the stairs: I1 = 0, I2 = 0  
 Difficulty driving a car: I1 = 0, I2 = 0  
 Difficulty performing sports/physical activity: I1 = 5, I2 = 3

Note No 12-month follow-up conducted for I3. Pain last week >1 not reported for 3-month follow-up for I1 and I2. No statistically significant difference between I1 and I2 at 3 or 12 months follow-up, test-result not reported at 5-year follow-up.

### Outcome Objective measurements of abdominal wall strength

#### Results

#### Baseline, median (range), n

Flexion 30°: I1 = 93.84 (32.04 to 227.29), 29. I2 = 77.44 (29.57 to 122.17), 28  
 Flexion 60°: I1 = 107.21 (52.63 to 233.26), 29. I2 = 85.425 (34.03 to 144.86), 28  
 Extension 30°: I1 = 102.8 (51.27 to 238.79), 29. I2 = 96.88 (39.56 to 154.21), 28  
 Extension 60°: I1 = 104.53 (61.82 to 254.59), 29. I2 = 95.45 (36.93 to 173.21), 28  
 Isometric: I1 = 73.6 (25.19 to 142.91), 29. I2 = 62.26 (14.6 to 123.06), 27

#### 12 months after surgery, median (range), n

Flexion 30°: I1 = 103.93 (51.95 to 223.67), 27. I2 = 91.52 (41.25 to 178.96), 28 \*  
 Flexion 60°: I1 = 122.2 (63.98 to 264.21), 27. I2 = 106.155 (62.33 to 181.27), 28  
 Extension 30°: I1 = 114.7 (63.34 to 270.95), 27. I2 = 109.445 (38.74 to 194.54), 28 \*  
 Extension 60°: I1 = 126.43 (77.1 to 272.6), 27. I2 = 117.055 (46.89 to 202.23), 28  
 Isometric: I1 = 89.91 (45.88 to 181.33), 27. I2 = 81.57 (31.12 to 150.12), 28 \*  
 \* statistically significant difference between groups reported (p<0.05)

Note Measured using dynamometer. For I3 only measured at 3 months follow-up (end-of-treatment), no corresponding data for I1 and I2 presented. Data for baseline and 1 year follow-up provided in correspondence with authors.

Significance test only reported for flexion 30°, extension 30° and isometric test.

<b>Outcome</b>	<b>Self-rated improvement of abdominal wall strength (VAS)</b>
Results	<p><b>3 months post operation</b> Mean (range): I1 = 6.9 (0 to 10), I2 = 4.8 (0 to 10) SD not reported.</p> <p><b>1 year post operation</b> Median (SD): I1 = 8 (2.08), I2 = 7 (2.62)</p>
Note	<p>VAS range 1 to 10. Results for I3 at 3 months follow-up (end-of-treatment) considered to be at high RoB, as answer affected if participants were offered surgical treatment. Statistically significant difference between I1 and I2 (<math>p=0.01</math>) at 3 months follow up. No statistically significant difference between I1 and I2 (<math>p=0.86</math>) at 1 year follow up.</p>
<b>Gruppe 2018, reference [47]</b>	
Conflict of interest	No conflict of interest declared. Funding provided by the Norwegian Research Council.
Study protocol	NCT01069484
Study design	RCT (secondary analysis)
Country	Norway
Study period	February 2010 to May 2012
Recruitment	Participants already enrolled in a cohort study at the hospital. Participants were also recruited at routine medical visit 6 weeks after delivery.
Setting	University hospital and private institute.
Inclusion criteria	Primiparous women. Vaginal birth. Singleton pregnancy, with > 32 weeks gestation.
N randomised	175
Baseline characteristics	Age (yr.), mean (SD): I = 29.5 (4.3), C = 30.1 (4.0) BMI postpartum ( $\text{kg}/\text{m}^2$ ), mean (SD): I = 26.0 (4.1), C = 25.3 (3.9) Childs birthweight (g), mean (SD): I = 3543.7 (482.3), C = 3382.3 (411.7)
Analysis	Intention to treat
Missing data	6 months postpartum (n, %): I = 12 of 87 (13.8%), C = 3 of 88 (3.4%) 12 months postpartum (n, %): I = 13 of 87 (14.9%), C = 7 of 88 (8.0%). Imputation of missing data by LOCF.
Note	2,621 participants were assessed for eligibility of whom 2,390 declined to participate. Secondary analysis of an RCT to evaluate the effect of PFM-training on urinary incontinence. Power calculated for the primary analysis of urinary incontinence. Baseline characteristics presented for all participants, only a subset of which had DRAM defined as $\text{IRD} \geq 2$ finger widths I = 48 (55.2%), C = 48 (54.5%). Measurements taken at, 4.5 cm below and above the umbilicus during abdominal crunch w. head and shoulders lifted off the surface.

<b>Treatment groups</b>	
<b>Treatment group</b>	<b>I: Postpartum training program</b>
Treatment	Focus of program was to strengthen the pelvic floor muscle, but also contained exercised for strengthening of abdominal, back, arm and thigh muscles, stretching and relaxation. Supervised exercise 1 time per week and daily at home for 16 weeks.
Allocated participants	87
<b>Treatment group</b>	<b>C: No treatment</b>
Treatment	Written instruction on how to contract pelvic floor muscle correctly.
Allocated participants	88

<b>Study outcomes</b>	
<b>Outcome domain</b>	<b>DRAM physiology</b>
<b>Outcome</b>	<b>Resolution of DRAM</b>
Results	<p><b>Baseline (6 weeks postpartum), n (%)</b>            I: With DRAM: 48 (55.2%), without DRAM: 39 (44.8%)            C: With DRAM: 48 (54.5%), without DRAM: 40 (45.5%)  <i>Reported p-value: 1.0</i></p> <p><b>End-of-treatment (6 months postpartum), n (%)</b>            I: With DRAM: 38 (43.7%), without DRAM: 49 (56.3%)            C: With DRAM: 39 (44.3%), without DRAM: 49 (55.7%)  <i>Reported p-value: 1.0</i>            Calculation: (10/48)/(9/48), RR (95 % CI) = 1.11 (0.50 to 2.49)</p> <p><b>6 months after treatment (12 months postpartum), n (%)</b>            I: With DRAM: 36 (41.4%), Without DRAM: 51 (58.6%)            C: With DRAM: 35 (39.8%), Without DRAM: 53 (60.2%)  <i>Reported p-value: 0.95</i>            Calculation: (12/48)/(13/48), RR (95 % CI) = 0.90 (0.36 to 2.23)</p>
Note	<p>16 week intervention started 6 weeks postpartum. Follow-up at 6 months postpartum equates to approx. 0 to 2 weeks after end-of-treatment. Reduction in DRAM on ordinal scale measured as number of finger widths judged to be at high RoB and not included. The criteria for resolution (no DRAM) was IRD &lt;2 fingerwidths.</p> <p>No statistically significant difference between the groups at any time point.</p>

<b>Kamel 2017, reference [50]</b>	
Conflict of interest	No conflict of interest declared.
Study protocol	Not stated.
Study design	Reported as RCT, judged to be quasi-RCT due to sequential allocation to groups.
Country	Egypt
Study period	Not stated.
Recruitment	Participants recruited via a gynecologic outpatient clinic at Cairo University Hospital.
Setting	Not stated.
Inclusion criteria	Women aged 25 to 35 years, 2 months postpartum, normal vaginal delivery. IRD more than 2.5 cm at any point of assessment along the linea alba. BMI <30 kg/m <sup>2</sup> . WHR >0.85. Singleton pregnancy. Parity not exceeding four times.
N randomised	60

Baseline characteristics	Age (yr.), mean (SD): I1 = 29.33 (2.98) I2 = 29.50 (3.00) BMI (kg/m <sup>2</sup> ), mean (SD): I1 = 28.02 (1.69), I2 = 27.49 (1.38) IRD (cm), mean (SD): I1 = 2.86 (0.31), I2 = 2.82 (0.28) Parity (times), mean (SD): I1 = 2.50 (0.63), I2 = 2.53 (0.63)
Analysis	Per-protocol.
Missing data	End-of-treatment: I1 = 1 of 30, I2 = 2 of 30
Note	Only participants who finished all all treatment sessions and provided pre- and post-intervention assessments were included in analysis. Primary outcome not stated. Outcomes reported but not included: BMI, waist circumference and waist-to-hip ratio.

### Treatment groups

Treatment group	I1: NMES + abdominal exercises
Treatment	Neuromuscular electrical stimulation (NMES) for 30 min three times per week for 8 weeks and abdominal exercises as for I2.
Allocated participants	30
Treatment group	I2: Abdominal exercises
Treatment	Abdominal exercises three times per week for 8 weeks. Program included sit ups, reverse sit-ups, reverse trunk twists, and U-seat exercises. Each exercise was repeated 20 times, with 4 repetitions added weekly. The program also included 5 repetitions of a diaphragmatic stretching and thoracic blocking maneuvers, one repetition added weekly. Participants were instructed to perform the same program as home routine.
Allocated participants	30

### Study outcomes

Outcome domain	DRAM physiology
Outcome	Inter-recti distance
Results	<b>Baseline (cm), mean (SD)</b> I1: 2.86 (0.31) I2: 2.82 (0.28)  <b>End-of-treatment (cm), mean (SD)</b> I1: 1.43 (0.38) I2: 2.09 (0.35) Mean difference (95% CI) -0.65 (-0.85 to -0.46)
Note	IRD measured by ultrasound midway between the umbilicus and xiphoid process
Outcome domain	Physical function
Outcome	Objective measurement of abdominal wall strength
Results	<b>Baseline, mean (SD)</b> Peak torque (N/m): I1 = 29.36 (5.87), I2 = 30.38 (6.22) Maximum repetition total work (J): I1 = 18.95 (4.56), I2 = 18.07 (5.46) Average power (W): I1 = 17.48 (4.09), I2 = 17.93 (4.12)  <b>End-of-treatment, mean (SD)</b> Peak torque (N/m): I1 = 51.64 (5.26), I2 = 46.64 (6.74) Maximum repetition total work (J): I1 = 37.05 (7.92), I2 = 25.35 (7.90) Average power (W): I1 = 30.81 (8.08), I2 = 23.83 (5.59)  Peak torque (N/m): Mean difference (95% CI) 5.22 (from 1.95 to 8.50) Maximum repetition total work (J): Mean difference (95% CI) 11.84 (from 7.57 to 16.10) Average power (W): Mean difference (95% CI) 7.55 (from 3.84 to 11.27)

Note	Measured using dynamometer, best value out of three reported.
<b>Tuttle 2018, reference [48]</b>	
Conflict of interest	No conflict of interest declared. Funding by the San Diego State University.
Study protocol	
Study design	RCT (pilot-study)
Country	USA, California
Study period	Not stated.
Recruitment	Recruitment at local birth centers, via new parenting groups and by word of mouth.
Setting	Home based interventions. Home visits for instructions and evaluations. Weekly check-ins by reserach assistants via phone, e-mail or text.
Inclusion criteria	Female, $\geq 18$ yrs., primiparous or multiparous, 6 to 12 weeks postpartum, with a palpable DRAM of $\geq 2$ fingerwidths. PFDI-20 score $\leq 75$ %.
N randomised	33
Baseline characteristics	Age (yr.), mean (SD): I1 = 31.20 (4.94), I2 = 32.60 (2.88), I3 = 31.88 (3.76), C: 33.00 (5.45). BMI (kg/m <sup>2</sup> ), mean (SD): I1 = 26.33 (4.04), I2 = 24.19 (3.25), I3 = 27.54 (7.36), C = 28.03 (3.29). Parity (times), mean (SD): I1 = 2.30 (1.16), I2 = 2.8 (2.05), I3 = 1.63 (0.52), C = 2.71 (1.60).
Analysis	Intention to treat
Missing data	End-of-treatment (12 weeks), n: I1 = 1 of 10, I2 = 1 of 5, I3 = 1 of 8, C = 0 of 7. No imputation of missing data.
Note	12-week intervention

### Treatment groups

<b>Treatment group</b>	<b>I1: Abdominal exercise</b>
Treatment	Transverse abdominis exercises (TRA) to control the abdominal wall without distension. The exercises were performed with 10 repetitions in 4 positions. Participants received one instruction session with a physical therapist, and where then instructed to perform the exercises at home 4–5 times/week for 12 weeks.
Allocated participants	10
<b>Treatment group</b>	<b>I2: Abdominal exercise in combination with kinesiotaping</b>
Treatment	Instructions for TRA and application of kinesiotape. Instructed to perform exercises and kinesiotaping in same manners as groups with exercise or taping alone.
Allocated participants	5
<b>Treatment group</b>	<b>I3: Kinesiotaping</b>
Treatment	One instruction session for application of kinesiotape above and below umbilicus. Encourage to wear tape 4–7 consecutive days followed by 2–4 day break before new application of tape throughout 12 weeks.
Allocated participants	8
<b>Treatment group</b>	<b>C: No treatment</b>
Treatment	No intervention, instructed to maintain normal level of physical activity.
Allocated participants	7

<b>Study outcomes</b>	
<b>Outcome domain</b>	<b>DRAM physiology</b>
<b>Outcome</b>	<b>Inter-recti distance 4.5 cm above umbilicus</b>
Results	<p><b>Measurements (cm) at baseline/end-of-treatment, mean (SD):</b></p> <p><u>Measurements taken at rest:</u>  Exercise: 2.04 (0.63) to 1.04 (0.52)  Exercise +Tape: 1.95 (0.67) to 1.07 (0.22)  Tape: 2.1 (1.05) to 2.09 (1.69)  Control: 2.06 (0.67) to 1.99 (0.73)</p> <p><u>Measurements taken with head lifted:</u>  Exercise: 2.08 (0.74) to 0.99 (0.64)  Exercise +Tape: 1.96 (0.54) 0.89 (0.27)  Tape: 2.00 (1.00) to 1.71 (1.25)  Control: 2.15 (0.59) to 2.13 (0.72)</p> <p><b>Change from baseline (cm), mean (SD):</b></p> <p><u>Measurements taken at rest:</u>  Exercise: -0.94 (0.45)  Exercise +Tape: -0.88 (0.72)  Tape: -0.19 (0.70)  Control: -0.39 (0.49)</p> <p><u>Measurements taken with head lifted:</u>  Exercise: -1.09 (0.63)  Exercise +Tape: -1.07 (0.66)  Tape: -0.29 (0.28)  Control: -0.13 (0.31)</p>
Note	Measured using ultrasound. Baseline and end-of-treatment data was provided via contact with the authors.
<b>Outcome</b>	<b>Inter-recti distance at umbilicus</b>
Results	<p><b>Measurements (cm) at baseline/end-of-treatment, mean (SD):</b></p> <p><u>Measurements taken at rest:</u>  Exercise: 2.30 (0.49) to 1.34 (0.37)  Exercise +Tape: 2.70 (0.19) to 1.39 (0.29)  Tape: 2.36 (0.68) to 1.92 (0.44)  Control: 2.29 (0.66) to 2.10 (0.99)</p> <p><u>Measurements taken with head lifted:</u>  Exercise: 2.20 (0.66) to 1.22 (0.32)  Exercise +Tape: 2.15 (0.42) to 1.19 (0.29)  Tape: 1.89 (0.38) to 1.53 (0.22)  Control: 1.70 (0.33) to 1.33 (0.23)</p> <p><b>Change from baseline (cm), mean (SD):</b></p> <p><u>Measurements taken at rest:</u>  Exercise: -0.96 (0.38)  Exercise +Tape: -1.31 (0.20)  Tape: -0.44 (0.40)  Control: -0.23 (0.60)</p> <p><u>Measurements taken with head lifted:</u>  Exercise: -0.99 (0.60)  Exercise +Tape: -0.96 (0.68)  Tape: -0.52 (0.37)  Control: -0.30 (0.22)</p>
Note	Measured using ultrasound.
<b>Outcome domain</b>	<b>Symptoms/Disability</b>
<b>Outcome</b>	<b>Pelvic Floor Distress Inventory (PFDI-20)</b>
Results	<p><b>Measurements at baseline/end-of-treatment, mean (SD):</b></p> <p>Exercise: 44.0 (63.9) to 14.5 (13.6), N=8  Exercise +Tape: 26.3 (18.1) to 26.5 (28.5), N=5</p>

Tape: 40.4 (21.1) to 22.1 (11.3), N=4  
 Control: 40.0 (12.5) to 11.7 (9.9), N=5

Note	The PFDI-20 scores range from 0 (least distress) to 300 (greatest distress).
	No statistically significant difference in PFDI-20 score between the groups at baseline or follow-up ( $p>0.05$ ).
	The PFDI-20 data for treatment groups was provided via contact with the authors.
<b>Outcome</b>	<b>The Roland-Morris Disability Questionnaire (RDQ)</b>
Results	<b>Measurements at baseline/end-of-treatment, mean (SD):</b> Exercise: 4.6 (6.5) to 2.5 (4.0), N=8 Exercise +Tape: 4.6 (5.8) to 1.8 (3.0), N=5 Tape: 2.8 (3.7) to 2.5 (5.0), N=4 Control: 4.4 (5.3) to 2.8 (5.2), N=5
Note	The RDQ scores range from 0 (no disability) to 24 (severe disability). No statistically significant difference in RDQ score between the groups at baseline or follow-up ( $p>0.05$ ). The RDQ data for treatment groups was provided via contact with the authors.