

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

SUPPLEMENTARY MATERIALS

Efficacy of standardized rehabilitation in the treatment of diastasis rectus abdominis in postpartum women

SUPPLEMENTARY FIGURE LEGENDS

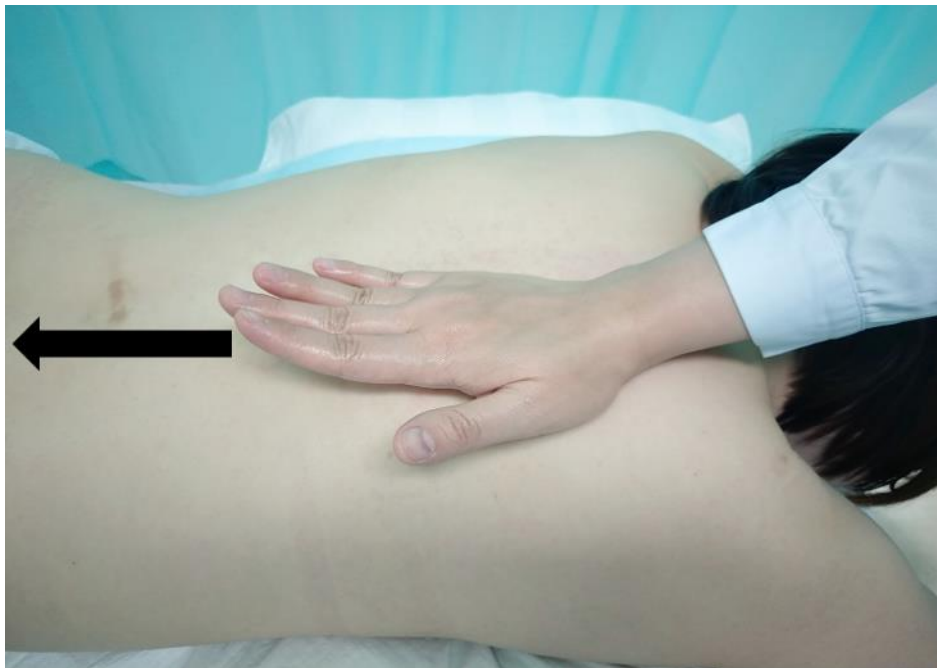
Figure S1-19. Standardized rehabilitation for non-surgical treatment of DRA.

Before initiating the procedure, the patients were encouraged to relax the whole body. The total length of the procedure took about 70 minutes, 40 of which were for manual massage (**Part 1**) and 30 minutes for the treatment with electrophysiological equipment (**Part 2**).

Part 1

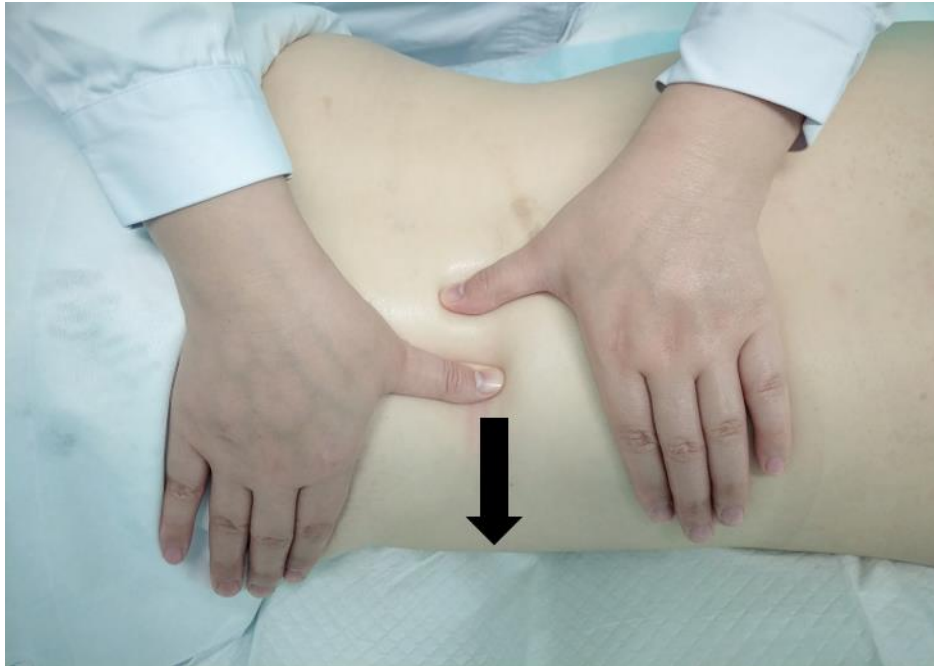


16 **Figure S1. Pushing Du Channel with a finger.** The person performing the treatment
17 stood next to the patient's head, opened the thumb, and relaxed the remaining four
18 fingers, which overlapped or were alternately pushed one way straight from the neck to
19 the spine and the sacrum. The movement was slow and even. **2 minutes.** (Suppl. Fig.
20 **1)**

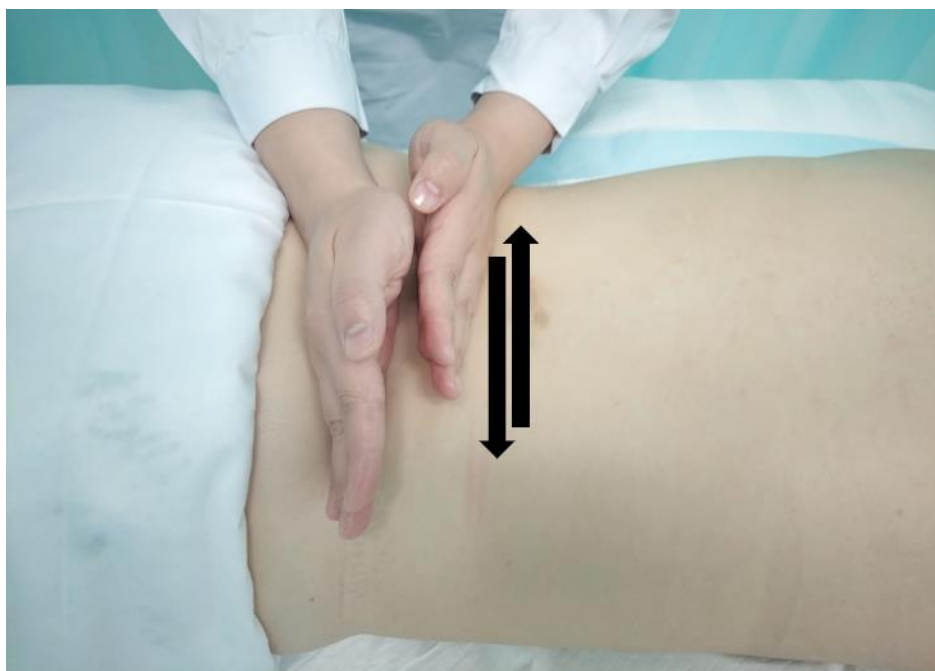


21 **Figure S2. Pushing erector spinae with palm.** The person performing the treatment
22 stood next to the patient's head, with one or two palms overlapping, with the large and

23 small thenar as the focus point, performing a one-way straight push along both sides of
24 the spine from top to bottom, sinking and moving slowly with uniform force. This
25 approach can relieve the soreness of the lower back muscles and improve the strength
26 of the waist. **1 minute. (Suppl. Fig. 2)**



27 **Figure S3. Pushing the back Dai Mai acupoint with a finger.** The person performing
28 the treatment opened the thumb of both hands, relaxed the other four fingers, and
29 alternately pushed the two thumbs from the fourth lumbar vertebrae to the Dai Mai
30 acupoints on both sides in one direction to relieve back pain. **1 minute.**



31 **Figure S4. Warm rubbing of the Baliao acupoint.** The person performing the
32 treatment put the palms of the hands together, used the side of the palm as the focus
33 point, and quickly rubbed back and forth until the entire Baliao acupoint area was
34 covered, which fully relieved the lumbosacral pain. **1 minute.**

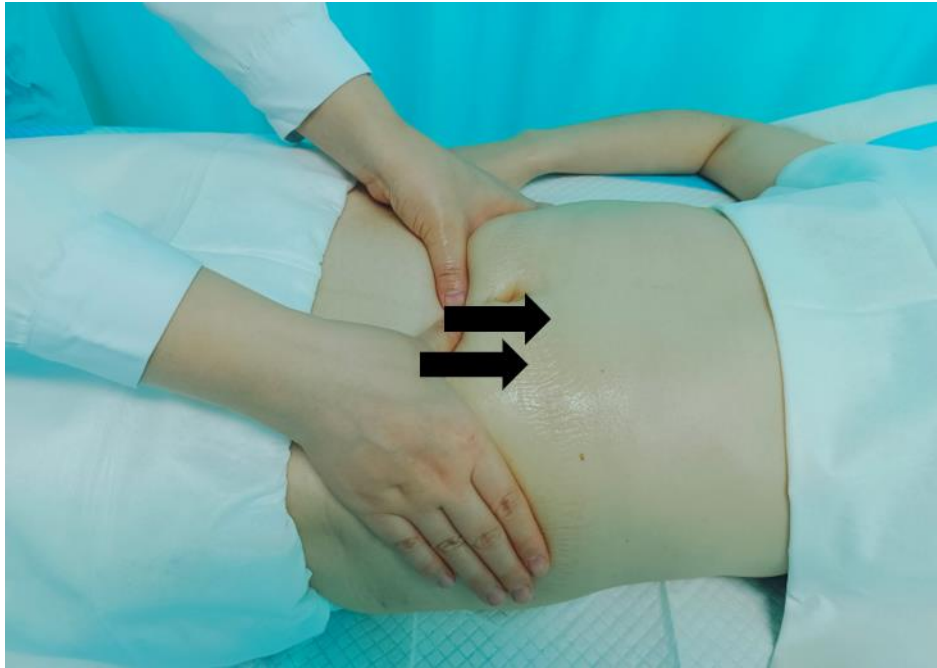


35 **Figure S5. Circular rubbing of the abdomen.** The person performing the treatment
36 put the palms of both hands close to the abdomen; the palms of the hands were driven
37 by the strength of the wrist, aiming to perform clockwise Tai Chi ring rubs along the

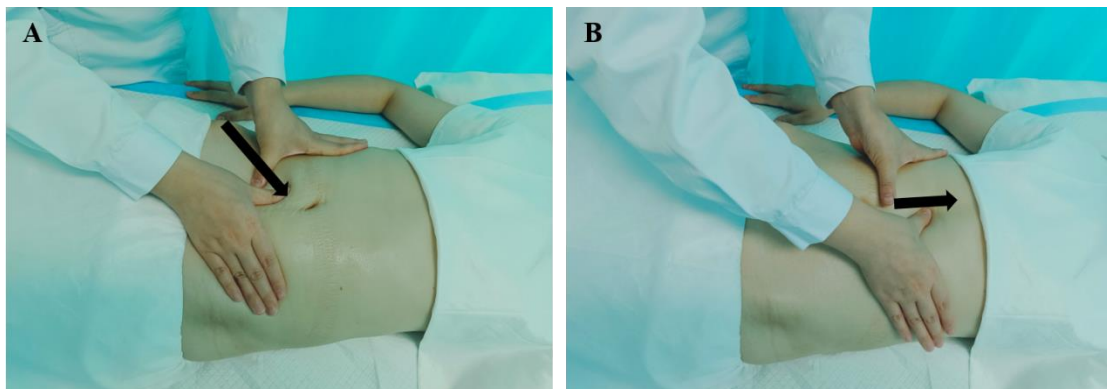
38 umbilicus. The rubbing was evenly applied to relax the abdominal muscles and promote
39 blood circulation. **1 minute.**



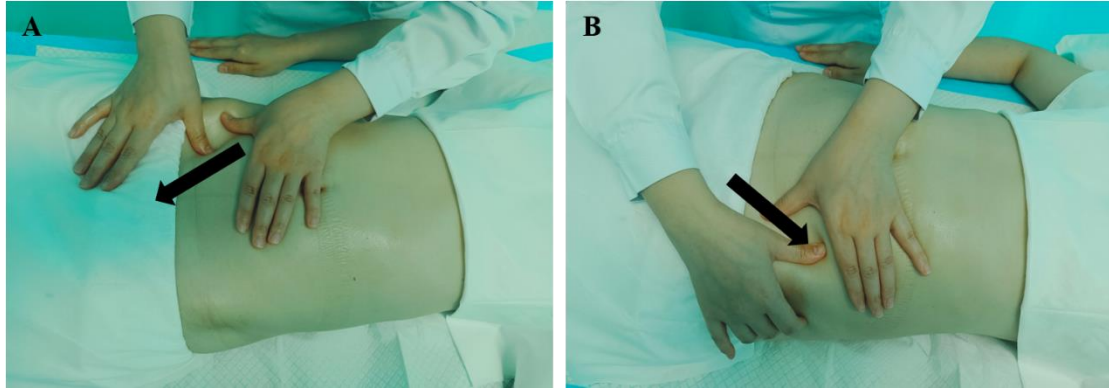
40 **Figure S6. Pushing Renmai acupoint with a finger.** The person performing the
41 treatment opened the thumb and relaxed the other four fingers. The two thumbs
42 alternately moved from the upper part of the pubic symphysis to the diaphragm in the
43 one-way straight push and sunk slowly, softly, and evenly to relieve the pressure on the
44 rectus abdominis. **1 minute.**



45 **Figure S7. Pushing Chongmai acupoint with a finger.** The person performing the
46 treatment opened the thumbs of both hands, relaxed the other four fingers, alternately
47 pushing the two thumbs along the direction of the abdomen Chongmai acupoint, and
48 regulating blood. **2 minutes.**



49
50 **Figure S8. Pushing the abdominal wall artery with a finger. A).** The person
51 performing the treatment opened the thumbs of both hands, relaxed the other four
52 fingers, and **B).** alternately pushed the two thumbs from the lower 1/3 of the inguinal
53 ligaments on both sides to the navel direction, and then pushed from the navel to the
54 diaphragm straightly. **2 minutes.**

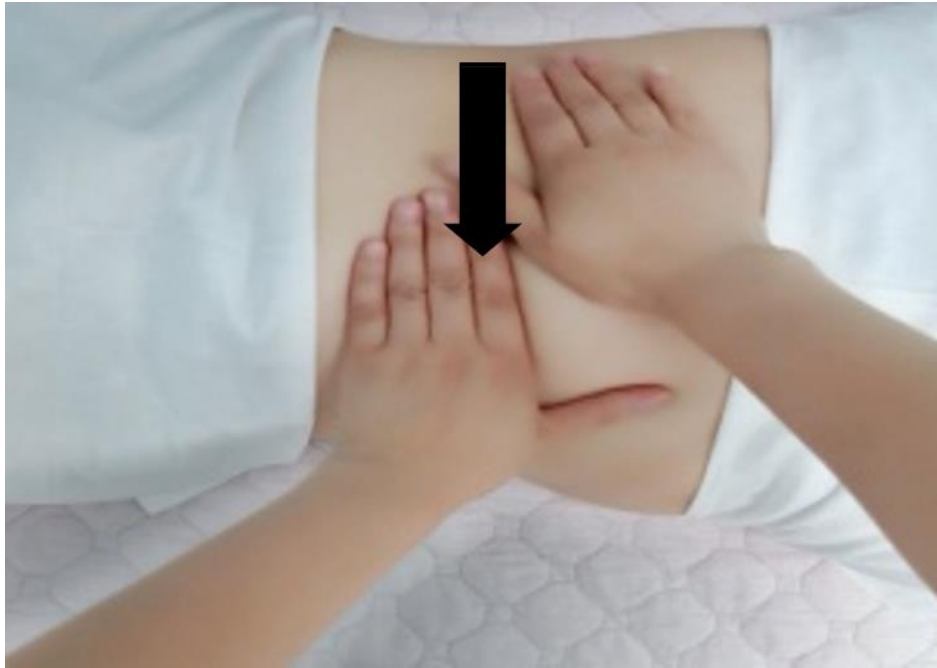


55

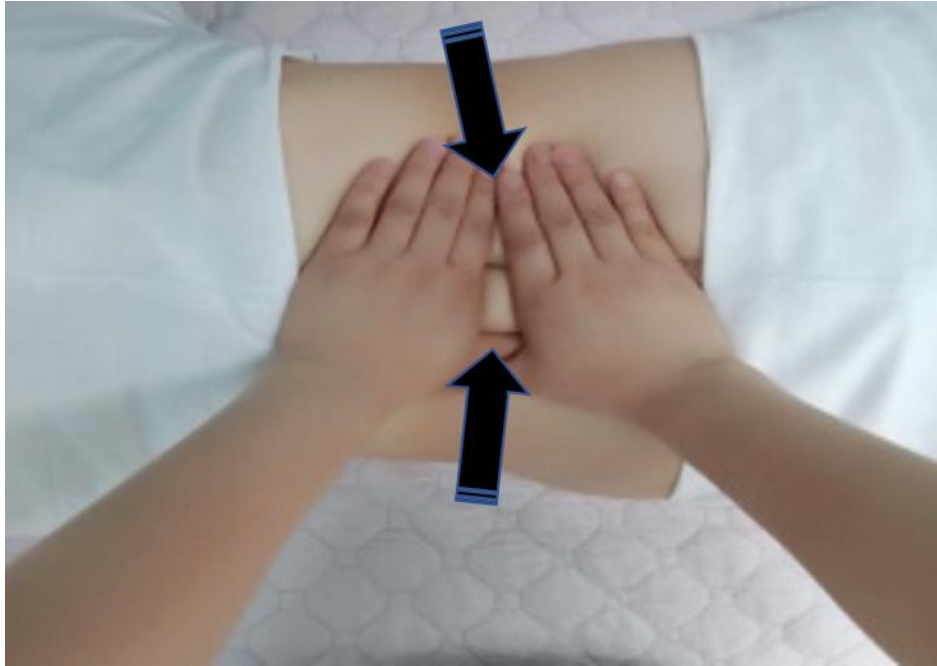
56 **Figure S9. Pushing the front Dai Mai acupoint with a finger.** A). The person
57 performing the treatment opened the thumb, relaxed the other four fingers, alternately
58 pushed the two thumbs from the proximal belt pulse point to the ipsilateral groin
59 direction, and then B). pushed it along the pubic symphysis and the opposite groin until
60 it reached the opposite side. **1 minute.**



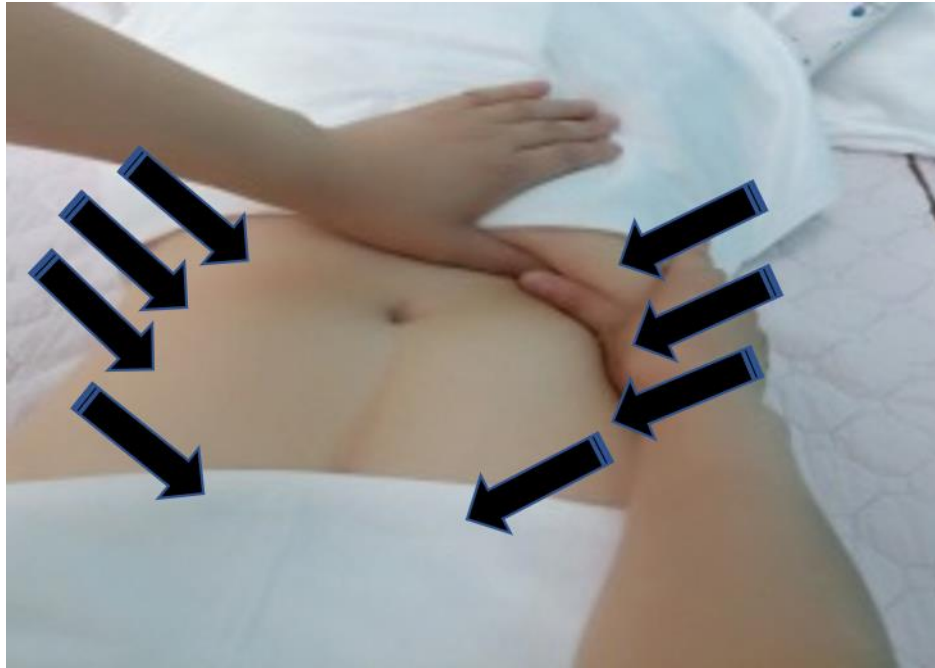
61 **Figure S10. Bilateral combing and pulling.** The person performing the treatment
62 closely attached the palms of both hands to the skin of the waist, from the back of the
63 axilla line to the umbilical direction, for alternate lifting movements from top to bottom
64 to relieve back pain. **3 minutes.**



65 **Figure S11. Inhale and exhale squeeze.** The person performing the treatment placed
66 the hands on the left and right sides of the umbilicus to instruct the parturient to do
67 abdominal breathing. The patient was advised to bulge the abdomen when inhaling and
68 contract the abdomen inward when exhaling. After the operator crossed the hands so
69 that the palms of the hands rested on the upper and lower parts of the umbilicus, the
70 patient was encouraged to squeeze inward and downward for 5 seconds to relax the
71 abdominal muscles. **1 minute.**



72 **Figure S12. Hip bridge training.** The patient was encouraged to relax and lie on the
73 back with feet as wide as the hips. Then, he was told to bend his knees to 90° as much
74 as possible. The person performing the treatment placed hands on both sides of the
75 waist and abdomen. When breathing, the abdomen was to be contracted inward, and
76 the hips extended, with the shoulders, hips, and knees in a straight line. This position
77 was held for 5 seconds, and then gradually, the body was flattened, thereby increasing
78 and strengthening the pelvic core muscles. **1 minute.**

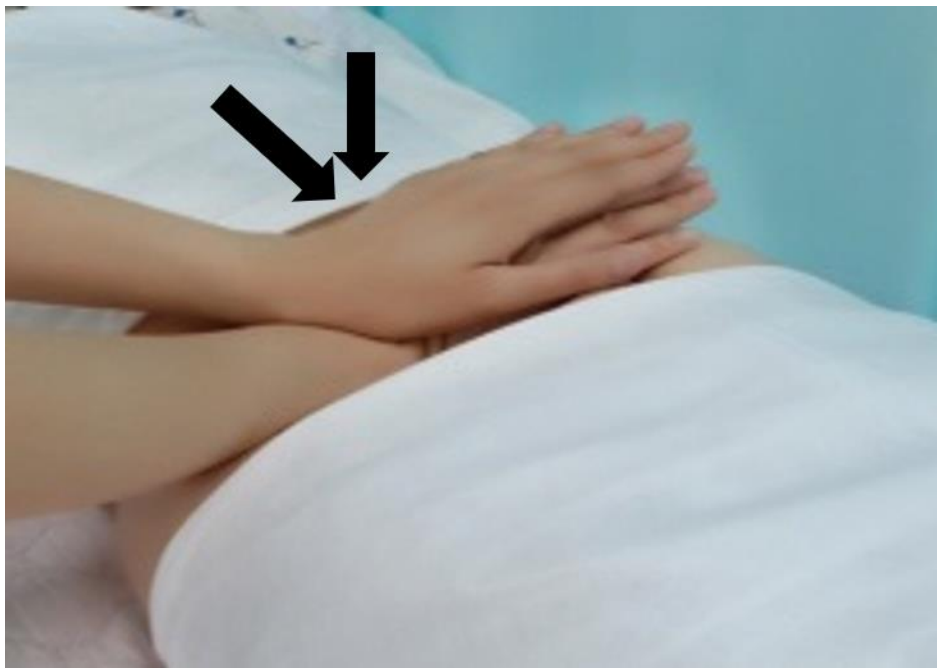


79 **Figure S13. Acupressure relaxation.** The person performing the treatment separated
80 the thumbs of both hands from the other four fingers, overlapping the thumbs of both
81 hands and pressing down firmly along the lower edge of the bilateral costal arch-the
82 outer edge of the transversus abdominis-the medial edge of the ilium-the upper edge of
83 the pubic symphysis. This position was held for 5 seconds each time, moving from light
84 to heavy, and then from heavy to light, continuously communicating and adjusting the
85 intensity. This method loosened the marginal fascia of the abdominal muscles. 7
86 **minutes.**



87

88 **Figure S14. Shake to loosen.** The person performing the treatment separated the
89 thumbs of both hands from the other four fingers, lifted the abdominal muscles to the
90 greatest extent, shook back and forth with the wrist as the fulcrum, and repeated until
91 it covered the entire abdomen. This method loosened the deep fascia of the abdominal
92 muscles. **3 minutes.**



93 **Figure S15. Crossing and vertical push.** With the umbilicus used as the center, the
94 abdomen was divided into eight parts, and the palm roots of both hands of the operator

95 overlapped and pushed inward and downward from the outer edge of the abdomen to
96 the umbilicus in order, and held in each direction for 1 minute. When applying force,
97 the arms were straightened, and the gravity of the upper body was used to push. When
98 pressing the upper and lower ends of the rectus abdominis, special attention was paid
99 to carefully gathering both rectus abdominis with one hand first, while the other hand
100 was pressed toward the umbilicus at the same time. This method effectively aggregated
101 the rectus abdominis. **15 minutes.**



102 **Figure S16. Converge abdominal muscles.** The person performing the treatment
103 placed the palms of the hands on both sides of the waist at the level of the umbilicus,
104 pressed the hands relatively hard, and at the same time did a close movement inward
105 and upward. He used uniform force throughout the process to further gather the rectus
106 abdominis. **1 minute.**

107



108 **Figure S17. Patting and relaxation.** The person performing the treatment put both
109 hands in the shape of an empty cup, with the wrist as the fulcrum, alternately and
110 quickly patting with both hands until the entire abdomen is covered. This method
111 relaxed the abdominal muscles and enhanced vitality. **1 minute.**

112



113 **Figure S18. Warm shaken Shenque acupoint.** The person performing the treatment

114 put the palms together and rubbed quickly until the palms became hot, and then
115 immediately covered the Shenque acupoint with one hand and shook it gently. **1 minute.**
116 Rest and adjustment. Patients were asked to adjust their breathing and rest on the back
117 for 5 minutes.

118

119 **Part 2**



120 **Figure S19. Multi-system therapy device YS-400. A-B).** Multi-system treatment
121 instrument YS-400 was used to treat diastasis rectus abdominis for **30 minutes**. During
122 the application, the patient lied on his back without any anesthesia. A procedure suitable
123 for the abdomen was adopted, and each course of treatment lasted precisely 30 minutes.
124 **C-D).** It was necessary to place the electromagnetic abdominal band on the skin at the
125 level of the umbilicus. The center of the magnetic coil was just above the umbilicus.
126 The abdominal belt was fixed to minimize movement during the treatment. The
127 stimulus intensity started at 0% and was slowly increased by the operator within 1

128 minute after treatment until it reached the patient's tolerance threshold. The stimulation
129 intensity of the instrument was adjusted by asking the patient's feedback about being
130 comfortable or not. The parturients were in a state of relaxation throughout the whole
131 process.

132 Rest and adjustment. Patients were asked to adjust their breathing and rest on the back
133 for 5 minutes.