even greater reductions in IRD (Wu et al., 2025). In addition, some clinical trials and case studies have shown that multimodal programs integrating Russian current or NMES with TrA training, aerobic exercise, and abdominal support can produce clinically meaningful short-term improvements, although these findings should be interpreted cautiously because of small sample sizes and short follow-up durations (Kaya and Menek, 2023; Khan and Bulbuli, 2024).

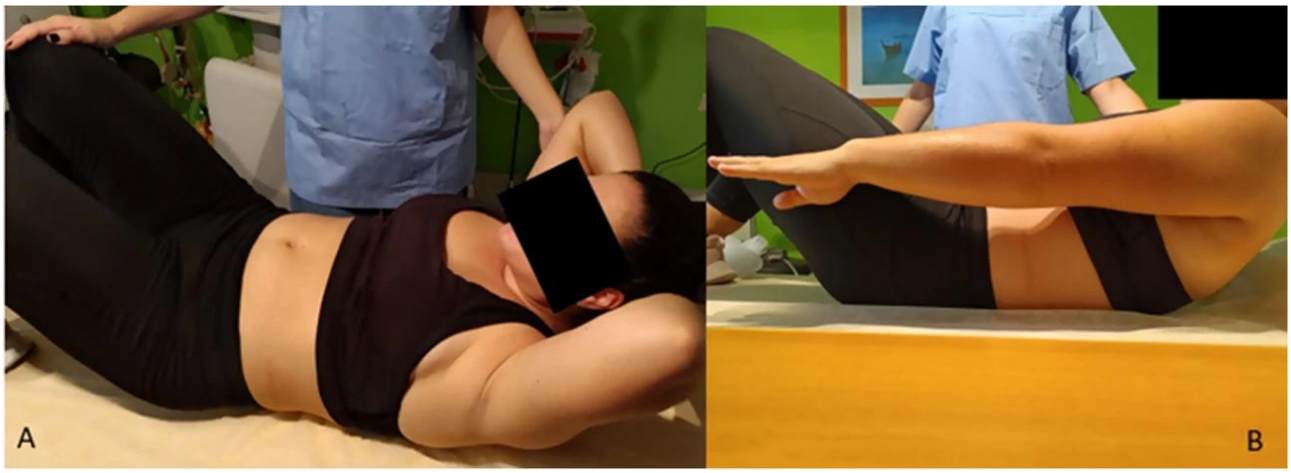

Figure 3 Abdominal muscle exercises (rectus abdominis focused) (Adopted from Skoura et al., 2024)
Image caption: A. Crunch exercise. The patient is positioned in supine with legs bent and arms supporting the head. Then they are asked to dynamically elevate their head and upper torso until their shoulder blades lift off the surface. B. Curl-up exercise. Positioned in supine with bent legs and arms extended beside the hips, parallel to the bed, the patient is instructed to curl their upper back and shoulders in a controlled way, until their shoulder blades are off the bed while maintaining their lower back in contact with the bed. The arms remain parallel to the ground, reaching towards the feet (Adopted from Skoura et al., 2024)

Biofeedback techniques provide real-time information on muscle activity and help patients establish appropriate neuromuscular recruitment patterns, making them especially suitable for postpartum individuals with poor motor control or limited training awareness. Common forms include surface electromyography (EMG) biofeedback, pressure feedback, and ultrasound visual feedback. Randomized controlled trials have shown that EMG biofeedback-assisted pelvic floor muscle training combined with rectus abdominis NMES results in greater reductions in IRD and improved health-related quality of life compared with NMES alone, indicating added value from neuromuscular retraining (Liang et al., 2022). This suggests that the benefits of physical therapy extend beyond passive stimulation, as these modalities can also enhance muscle awareness and motor control, thereby improving the quality and adherence of active exercise.

In addition to electrical stimulation and biofeedback, adjunctive interventions such as manual therapy, Kinesio taping, and electroacupuncture are frequently included in multimodal rehabilitation programs. Myofascial release, soft tissue mobilization, the Noble technique, and related manual approaches are primarily used to improve fascial glide, relieve local tension, and optimize force transmission pathways, and are often combined with postural training and exercise therapy (Chen et al., 2023). Kinesio taping may provide short-term support and proprioceptive input, potentially enhancing the effects of deep core training, although its standalone effectiveness appears limited (Muthulakshmi et al., 2023; Weber et al., 2024). Electroacupuncture and acupuncture combined with exercise have also shown some efficacy in certain network meta-analyses, but most studies are concentrated in specific regions and exhibit considerable methodological heterogeneity (Bigdeli et al., 2025; Zhu et al., 2025).

4.3 Comprehensive management

Rehabilitation management of DRA should emphasize the integration of multiple strategies in order to optimize structural support, functional recovery, and behavioral adaptation. Given that DRA often coexists with trunk instability, pelvic floor dysfunction, pain, aesthetic concerns, and body image issues, an increasing number of scholars advocate a comprehensive management model that includes exercise therapy, physical therapy, external support, health education, lifestyle guidance, and, when necessary, surgical intervention (Skoura et al., 2024;