

# THEME Others

Non operative management of postpartum Diastasis Recti: a systematic Review and metanalysis of Randomized controlled Trials.

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### **Aim**

Postpartum abdominal rectus diastasis (PARD) is a common condition with limited evidence on optimal conservative management.

This systematic review and meta-analysis aimed to evaluate the efficacy of physical therapy for PARD compared to no treatment

### Material & Method

A search on Pubmed and SCOPUS Databases were conducted using a search string without any time restriction and including paper in english language.

**Inclusion criteria**: RCTs comparing female patients with Postpartuum diastasis recti (RD) treated with a structurated physical therapy program versus nothing or a non-structurated program. Risk of Bias assessment was performed using ROB2 tool.

#### Primary outcome:

• Difference in the change of RD width between groups after treatment.

#### Secondary outcomes:

- Difference in RD width between the two groups before and after treatment
- Difference in changes of patient-reported outcome measures (PROMs) between the two groups after treatment
- Difference in PROMs within each group before and after treatment.

RD width was measured with clinical visit, US or Calliper assessment.

PROMS were assessed using Oswestri diasability score (ODI score) or presence of Pelvic Girdle Pain.

## Results

19 RCTs were included in the Meta-analyisis comparing several programs of Fisiokinesitherapy (FKT group) with a non-structurated program of FKT or nothing (control group)

|                                 |           | FKT                | control |           |        | ı       |                        | Mean Difference      | Mean Difference         |
|---------------------------------|-----------|--------------------|---------|-----------|--------|---------|------------------------|----------------------|-------------------------|
| tudy or Subgroup                | Mean      | SD                 | Total   | Mean      | SD     | Total   | al Weight              | IV, Random, 95% CI   | IV, Random, 95% CI      |
| .1.1 US                         |           |                    |         |           |        |         |                        |                      |                         |
| WAD                             | 20.8      | 2                  | 25      | 26.1      | 2.1    | 25      | 10.1%                  | -5.30 [-6.44, -4.16] |                         |
| L-MEKAWY                        | 24.5      | 1.2                | 15      | 20.5      | 3      | 15      | 9.4%                   | 4.00 [2.36, 5.64]    |                         |
| LUPPE                           | 36        | 9                  | 35      | 38        | 10     | 35      | 5.2%                   | -2.00 [-6.46, 2.46]  |                         |
| AIA 1                           | 14.5      | 4                  | 15      | 12.7      | 3.3    | 15      | 7.9%                   | 1.80 [-0.82, 4.42]   | +                       |
| AIA 2                           | 13        | 4                  | 15      | 12.7      | 3.3    | 15      | 7.9%                   | 0.30 [-2.32, 2.92]   |                         |
| AMEL                            | 14.3      | 3.8                | 30      | 20.9      | 3.5    | 30      | 9.1%                   | -6.60 [-8.45, -4.75] |                         |
| EIQN                            | 16        | 3                  | 33      | 20        | 3      | 33      | 9.7%                   | -4.00 [-5.45, -2.55] | -                       |
| HOHAIMI                         | 16.7      | 3.6                | 28      | 18.7      | 5.4    | 29      | 8.3%                   | -2.00 [-4.38, 0.38]  |                         |
| VEI                             | 24        | 7                  | 16      | 29        | 7      | 16      |                        | -5.00 [-9.85, -0.15] |                         |
| ubtotal (95% CI)                |           |                    | 212     |           |        | 213     | 72.4%                  | -2.06 [-4.72, 0.61]  | -                       |
| eterogeneity: Tau2              | = 14.72   | : Chi <sup>2</sup> | = 122   | .37, df   | = 8 (  | P < 0.0 | 10001); I2             | = 93%                |                         |
| est for overall effect          | t: Z = 1. | 51 (P              | = 0.13  | ()        |        |         |                        |                      |                         |
| .1.2 Calliper                   |           |                    |         |           |        |         |                        |                      |                         |
| TASZKOWSKA                      | 12        | 5                  | 13      | 16        | 4      | 11      | 6.4%                   | -4.00 [-7.60, -0.40] |                         |
| ALEEM                           | 23.8      | 0.9                | 20      | 25.9      | 0.8    | 20      | 10.6%                  | -2.10 [-2.63, -1.57] | -                       |
| HABET                           | 20        | 0.7                | 20      | 23.6      | 1.1    | 20      | 10.6%                  | -3.60 [-4.17, -3.03] | -                       |
| ubtotal (95% CI)                |           |                    | 53      |           |        | 51      | 27.6%                  | -2.97 [-4.31, -1.63] | •                       |
| eterogeneity: Tau2              | = 0.97; ( | Chi <sup>2</sup>   | = 14.71 | l. df = 1 | 2 (P = | - 0.000 | $(6)$ ; $I^2 = 8$      | 6%                   |                         |
| est for overall effect          | t: Z = 4. | 35 (P              | < 0.00  | 01)       |        |         |                        |                      |                         |
| otal (95% CI)                   |           |                    | 265     |           |        | 264     | 100.0%                 | -2.35 [-3.78, -0.92] | •                       |
| leterogeneity: Tau <sup>2</sup> | = 4.92: ( | Chi <sup>2</sup>   | = 137.1 | 1. df =   | 11 (   | P < 0.0 | 10001): I <sup>2</sup> | = 92%                |                         |
| est for overall effect          |           |                    |         |           |        |         |                        |                      | -io -s o s              |
| est for subgroup dif            |           |                    |         |           | 1 (P   | = 0.55  | ). I <sup>2</sup> = 0% |                      | Favours FKT Favours con |
|                                 |           |                    |         |           |        |         |                        |                      |                         |

The reduction in RD width between the two groups was statistically grater in FKT

|       |             | Risk of bias domains |          |          |          |          |         |  |  |  |  |  |
|-------|-------------|----------------------|----------|----------|----------|----------|---------|--|--|--|--|--|
|       |             | D1                   | D2       | D3       | D4       | D5       | Overall |  |  |  |  |  |
|       | GLUPPE      | +                    | •        | +        | •        | •        | +       |  |  |  |  |  |
|       | THABET      | -                    | •        | •        | •        | <b>+</b> | -       |  |  |  |  |  |
|       | SHOHAIMI    | <b>+</b>             | <b>+</b> | -        | •        | <b>+</b> | -       |  |  |  |  |  |
|       | PEIQIN      | +                    | +        | +        | •        | +        | +       |  |  |  |  |  |
|       | KAYA        | +                    | -        | •        | •        | •        | -       |  |  |  |  |  |
| Study | AWAD        | +                    | +        | +        | •        | <b>+</b> | +       |  |  |  |  |  |
|       | EL-MEKAWY   | -                    | •        | <b>+</b> | <b>+</b> | •        | -       |  |  |  |  |  |
|       | KAMEL       | +                    | +        | +        | <b>+</b> | <b>+</b> | +       |  |  |  |  |  |
|       | PTASZKOWSKA | +                    | -        | +        | •        | +        | -       |  |  |  |  |  |
|       | SALEEM      | +                    | -        | +        | <b>+</b> | <b>+</b> | -       |  |  |  |  |  |
|       | WEI         | -                    | -        | +        | 8        | <b>+</b> | ×       |  |  |  |  |  |
|       |             | _                    |          | _        | _        | _        | _       |  |  |  |  |  |

## In both group there was a significative reduction in RD width

FKT group: before 26.3±5.6 mm vs after 19.6±3.6 mm [MD] 6.03 95% CI [4.38-7.68] mm p <0.01

<u>Control group</u>: before 25.8 $\pm$ 6.7 mm vs after 22.0 $\pm$ 3.8 mm-MD 4.49 95% CI [2.44-6.53] mm.; p<0.01.

In both groups there was an improvement in ODI score and presence of PGP

No difference in ODI score or PGP incidence were retrieved between the two groups