Diastasis Rectus Abdominis: physiotherapy management

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Diastasis Rectus Abdominis (DRA)
Characterised by thinning and widening of the Linea Alba and associated increased laxity of the anterior abdominal wall (Mommers et al 2017)

Assessing/diagnosing DRA

RTUS = gold standard (van de Water & Benjamin 2016)
Palpation - most practised (Keeler et al 2012)
sufficient for clinical screening (Mota et al 2013; van de Water & Benjamin 2016)

No consensus for normative IRD values (Michakska et al 2018)
Lack of surgical consensus (Tadiparthi et al 2012)

Method?
Finger widths? pressure?
Crook lying at rest?
Crook lying on head lift? Crunch? How much?
Sitting/standing?
Pressure of probe? (Mota et al 2013)
Where to measure?
When? End of exhalation? (Teyhen et al 2008)

Is it just about the gap?

? Depth
? Function
? RA muscle belly
? Biopsychosocial
How does the evidence inform our clinical reasoning?

Behaviour during curl-up

- Controversies in the literature

- Research potential

Controversies in the literature

- PPP-RR-LD

Assessing ‘beyond the gap’

Person Posture Patterns Respiration Ribcage Load Defect

An acronym: (Preventing Pregnancy Pressure Preventing Rectus Lesions Lessening Diastasis)

Story
Baseline
Expectations

DRA negatively correlated with body image – Keshwani et al 2018
DRA negatively correlated to QOL – Benjamin et al 2018

Management
- Listen to, discuss and manage expectations
- Problem List, goal setting

Does DRA lead to reduced core function and non-optimal postures?

Gillard et al 2018 – IRD wider in upright positions

Positive correlation between “optimal” posture and a persons self-efficacy, confidence (Kirati et al 2019) and body image (Pepi, C. 2016)

Significant forward head posture increased activities of SCM muscles and anterior scalene muscles, decreasing forced vital capacity (Ving et al 2018)

Management
- Optimise posture
Holding patterns
Recruitment patterns Ab wall
Recruitment patterns PF

Management:
breathing | posture | transfers | defecation dynamics | ADL's
core recruitment | dispelling fear | soft tissue release

Re-evaluate: does improved co-contraction of TA/PF improve the function of the abdominal wall?

Diaphragm/Ab wall
Ab wall/PF

Co-ordinated activation & relaxation between all 3

We can utilise the diaphragm as a "moderator of IAP"
(Michelle Lyons, Breathe Better course - Burrell Education)

Use breathing to reconnect to TA
(Hodges et al 2007)

Management:
education | posture | recruitment strategies | soft tissue approaches
"letting go" | belly breathing | diaphragmatic breathing
functional breathing | conscious breathing | balloon resistance
relaxed breathing | resisted TEE's | biofeedback

Symmetry
Flare
Infra-ternal angle
Ribcage Expansion and Mobility
Thoracic mobility

Management:
core recruitment strategies | breathing | muscle energy techniques
breathing | soft tissue release | thoracic mobility | Off-load
e.g. ? Limiting over-head movements until strategies improve – Julie Welbe PT

**Functional integrity of the abdominal wall**

What happens during tasks requiring load transfer/stability/IAP management?


Assess during transfers, headlift, active SLR, resisted trunk rotation in standing, cough/talk/laugh

RTUS – visualise what happens at LA?

? Pelvic floor
Mechanical loading provides one of the strongest stimuli to adaptation of matrix tissue and tissue healing (Kjar 2015).

Low collagen type I and III levels in the midline abdominal wall may be key in the development of diastasis (Blotta et al. 2018).

Management:
Modify strategies for managing IAP:

Prescribe the maximum safe loading exercises for the abdominal wall

Bowel health and defecation dynamics (how we open the bowels can excessively load our connective tissue too)

Pelvic floor

? Taping/NMES/ hypopressives

Individualised Rehab program
Low Load

Individualised Rehab program
Medium Load

Individualised Rehab program
High Load

Patient specific Load
• Umbilical hernia?

**Pathway**

Blain et al 2017:

“available evidence does not describe the successful treatment of rectus diastasis after a physiotherapy training programme”

“physiotherapy could be a useful addition to surgical intervention for DRAM, to achieve satisfying functional outcome”

Key points

• Still a lot to investigate and understand about DRA
• Assess beyond the gap — holistic, individualised evaluation
• Evaluate rehab potential – don’t just go through the motions
• Diastasis is not just cosmetic!!!!
• Push for service development to improve over all care for this population
• #PPP-RR-LD

**Surgical Management**

Interviews with plastic surgeons from UK and Ireland

Conflicting info regarding oblique strengthening

Is it cosmetic or functional?

Scar management?

8 week check! What then?

Lifting?

Lying flat?

Oblique activity?

8 week – 1 year

8 week check? What then?

Recurrent hernia? All clear?

Binder?

Post-op restrictions?

Post-op recovery period?

What is the surgical approach? Plication of the anterior sheath? Stitching pattern?

Return to exercise

Is physiotherapy advisable pre/post op?

Scar management?

Surgical Management

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