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Diastasis Recti Abdominis

Just when you thought there was enough to screen for during pregnancy, this article tells you how important it is to keep an eye on the diastasis recti abdominis (DRA). It can affect a long list of secondary problems, more than just the appearance and general tone of a post natal mom's tummy.

What is it?

Diastasis Recti Abdominis is a midline separation at the linea alba of the recti muscles of the abdominal wall. A palpable midline gap of more than 2.5 cm or any visible bulging on exertion is considered as a diastasis. DRA commonly occurs around the umbilicus, but can occur anywhere between the xiphoid process and pubic bone. It is a result of abdominal musculature stretch weakness from maternal hormonal changes and increased tension by the growing uterus. DRA can occur in varying degrees during pregnancy and may not resolve spontaneously in the postpartum period.

Symptoms of DRA

DRA looks like a ridge, which runs down the middle of the belly area. It stretches from the bottom of the xiphoid process to the umbilicus and pubic bone, and increases with muscle straining.

DRA is commonly seen in women who have multiple pregnancies causing repeated stretching of the muscles. Extra skin and soft tissue in the front of the abdominal wall may be the

only signs of this condition in early pregnancy. DRA usually appears in the second trimester. Its incidence peaks in the third trimester and remains high in the immediate postpartum period. In the later part of pregnancy, the top of the pregnant uterus is often seen bulging out of the abdominal wall. An outline of parts of the unborn baby may be seen in some severe cases. This phenomenon is more common in multi-parous mothers, as the linea alba is repeatedly stretched. The occurrence and size of DRA is much greater in non-exercising pregnant women than in exercising pregnant women.

This separation of the rectus abdominis muscle can cause an array of problems. Without the dynamic stabilisation that the abdominal muscles normally provide, weakness in the abdominal wall can jeopardize trunk stability and mobility; contribute to back pain, compromising posture, pelvic floor dysfunctions, hernia, cosmetic defects and vaginal delivery. Back and/or pelvic pains are the most common manifestation of a DRA. A retrospective study done in 2007 by Spitznagle et al examined the prevalence of diastasis recti abdominis in a urogynecological patient population found 66% of all patients with DRA had support-related pelvic floor dysfunction (SPFD) diagnoses of stress urinary incontinence, faecal incontinence, and pelvic organ prolapsed.

Diagnosing DRA

Ultrasonography (real-time ultrasound

imaging) is an accurate method to measure rectus diastasis above the umbilicus and at the umbilical level. However, a health provider can conduct a quick palpation test to assess for DRA. DRA is difficult to find on a relaxed abdomen. A slight head lift in crook lying will require a rectus abdominis contraction, and will allow for assessment of the DRA. A small separation of the midline at the abdominals, approximately one to two fingers' width, is common after most pregnancies, and is not a problem. But if the gap at the midline is:

- more than 2 1/2 finger widths
- does not shrink as the patient tighten her abdominals or
- a small mound protruding at her midline

then she probably have DRA and need to take a few special precautions during exercise and other activities.

DRA is present if you can fit two or more fingers (width-wise) into the space superior to the umbilicus. On further abdominal contraction, the gap should close, however if there is still a gap larger than 1 finger wide, it is a positive DRA. Such a test is typically administered in postpartum women to check the integrity of the recti abdominis, though it must be emphasized that this test may be conducted in post-caesarean women only after their incision had healed, about 6-10 weeks after the operation.

Management

Conservative management, such as specific therapeutic exercises directed by a physiotherapist, or health care

professional well-acquainted with DRA, is usually the first line of intervention. Such exercises are aimed at strengthening the deep core muscles, such as the transverses abdominis and pelvic floor muscles. Poorly executed abdominal exercises can cause an increase in intra-abdominal pressure, this force may cause further recti separation and its accompanying bulge/hernia to worsen.

Hence, it is important to monitor DRA (and the hernia if any) before prescribing any abdominal exercises. Unsuitable abdominal exercises include sit ups, straight leg raises, Pilates movements i.e. "the 100s" and especially trunk rotation activities, such as criss-cross sit ups which target the obliques, can strain the abdominals excessively. Weakness in the core muscles contributes to insufficient force closure of the sacroiliac joint leading to pelvic instability, which can eventually lead to lower-back and hip pain. In the worst-case scenario, this recti separation can result in a hernia. Hence, once a diastasis is identified, the female patient is asked to book an initial appointment with the physiotherapist between 2 to 3 weeks after delivery. Follow up visits are made at 2, 3 or 4 week intervals depending on: i) the condition of the patient's abdominal musculature, ii) the ability of the patient to comprehend the exercise program, and iii) the compliance of the patient to follow through.

At the initial visit, the patient is given instructions on i) correct body mechanics, ii) proper posture, iii) appropriate exercises to activate the abdominal musculature, and iv) appropriate exercises to re-approximate the recti bellies without increasing intra-abdominal pressure.

At each subsequent visit, the patient is taught i) to retrain the concentric and eccentric control of the abdominal musculature and ii) to simulate the functional role of the abdominal musculature in trunk stabilization.

Recommendations on physical activities and sports in home and community are also given at subsequent visits. Assistive abdominal supports/ splints may be recommended. The patient is

Special Precautions for Women with Abdominal Separation/Diastasis Recti (DRA)

Avoid all activities that place stress on the midline, that stretch or overly expand the abdominal wall through everyday activities.

Some Types of Movement to Avoid

- Repetitive trunk movements or diagonal twists i.e. during a tennis serve.
- Exercises that require lying backward over a large exercise ball.
- Yoga postures that stretch the abs, such as "cow pose," "up-dog," all back-bends, and "belly breathing."
- Abdominal exercises that work the exterior abdominal muscles, such as crunches and oblique curls.
- Exercises that cause the abdominal wall to bulge out upon exertion.
- Lifting and carrying very heavy objects.
- Intense coughing while abdominal muscles are unsupported.

Tip: After childbirth, if the patient develop a cough from allergies or a respiratory illness, such as a cold or flu, advise her to place her hands across her belly and support her abdomen firmly (manual splinting) during coughing episodes. This will provide needed additional support, and prevent further separation of her DRA.

discharged when the diastasis is closed or bridged together.

Prognosis

The patient usually does very well. In most cases, recti diastasis usually heals on its own over a postpartum period of 6 weeks to 3 months. However, DRA may also persists long after the woman delivered. Further intervention is required if this does not occur. Specific therapeutic exercise may help improve the condition. Umbilical hernia may occur in some cases. If pain is present, surgery may be needed. In general, complications only result when a hernia develops.

Conclusion

Women with DRA were more likely to be older and of higher parity, have had twins, bigger babies, and birth by caesarean section. Studies suggested that earlier recovery may be associated with lower parity, singleton births, weight gain under 35 pounds, birthweight of baby <3.7 kg, increased activity levels before, during and after pregnancy. Clinically, good compliance with the treatment program and early initiation of treatment may also enhance recovery. Therefore, prophylactic measures, such as routine screening/identification of DRA and

subsequent DRA management to all mothers during pregnancy and in the immediate postpartum period may be beneficial in the long run.

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MICA (P) 158/10/2010

This newsletter is produced by Core Concepts - Musculoskeletal Health.

We can be reached at
T: 6226 3632 or

E: enquiry@coreconcepts.com.sg

W: www.coreconcepts.com.sg

