Maternal Birth Trauma

Patient Information Series – What you should know, what you should ask.

What is Maternal Birth Trauma?

Maternal birth trauma includes damage to the perineum (the tissue between vagina and anus), the vagina proper, the anal sphincter (the muscle around the back passage) and the levator ani (pelvic floor) muscle, occurring during a vaginal delivery. Sphincter tears are often diagnosed at the time of the delivery, but pelvic floor muscle tears need special 4D ultrasound imaging. Perineal and anal sphincter tears are graded according to severity (1,2, 3a, 3b, 3c and 4th degree). Pelvic floor muscle tears are graded as partial, unilateral (one side) and bilateral (both sides) avulsion.

How does it happen?

During birthing of the baby's head, the vagina, perineum and pelvic floor muscle have to stretch a lot. In 80% of first- time mothers, this results in harmless tearing of skin and connective tissue (1st and 2nd degree perineal tears). In about 10% there also are major tears to the pelvic floor muscle ('avulsion'), and in 5% the anal sphincter may also be torn. The latter two forms of trauma are regarded as 'major trauma'.

What are the main risk factors for major trauma?

Most anal sphincter and pelvic floor tears happen at the first vaginal birth. A very quick birth in someone giving birth to a fourth, fifth or sixth baby can also cause a sphincter tear, but this is much less common.

The most important risk factor for both avulsion and sphincter tears is Forceps; Vacuum is less risky. A large baby, a baby that faces the wrong way (occipito- posterior),i.e. looking up at the ceiling instead of down at the floor, a long pushing stage and trapped shoulders (shoulder dystocia) are also risk factors. The older you are when you have your first baby, the greater is the risk of avulsion.

What can be done to avoid such tears?

Forceps should be avoided if at all possible. There are large parts of the globe where forceps are rarely or never used, such as most European, Near and Middle Eastern, South East Asian and South American countries where vacuum is preferred.

What can be done to fix such tears?

Anal sphincter tears are usually diagnosed and fixed immediately after the birth, and competent obstetricians are trained to do so. Your maternity service should provide for a 6 -12 week follow-up to make sure all has healed well, preferably including an ultrasound to check the repair.

Pelvic floor muscle tears ('avulsion') is rarely diagnosed right after the birth because most such tears are hidden behind intact vaginal skin. We suspect an avulsion if there was a sphincter

tear, a large vaginal tear or a vaginal hematoma, (large blood clot) and after forceps. In such cases an ultrasound should be done after 6-12 weeks to exclude an avulsion.

Women after anal sphincter and pelvic floor muscle tears should see a competent pelvic floor physiotherapist and may need further investigations and treatment, depending on symptoms.

What are the consequences of such tears?

Anal sphincter tears are the commonest cause of leakage of stool and wind (‘fecal incontinence’ or ‘anal incontinence’) in younger women. Depending on the severity of the tear, 20-50% of women have long-term problems with leakage and may need further treatment.

Pelvic floor muscle tears or avulsion are the main cause of pelvic organ prolapse (a vaginal lump or bulge), especially of the bladder and womb (uterus). These organs then herniate through the opening of the pelvic floor muscle (‘hiatus’) which is often much enlarged after pelvic floor muscle trauma due to either tearing or overstretching. It is estimated that a large proportion of women with avulsion will develop prolapse symptoms over time, although these may take decades to become truly bothersome. Surgery may then be required, and in the presence of avulsion such surgery is often unsuccessful.

Will it happen again?

Most such tears happen with the first vaginal birth. It is rare for an avulsion to happen or get worse with a second birth which is why future vaginal deliveries are not a problem. In fact, an avulsion and/ or overstretching of the pelvic floor are very likely to make future births easier for mother and baby.

The situation is different for anal sphincter tears. If such a tear has been repaired and the woman still has symptoms of anal incontinence, obstetricians often suggest that future births occur by Caesarean Section in order to protect the repair.

What other questions should I ask?

- How severe is the tear?
- Do I need further tests?
- Do I need treatment?
- What does this mean for future pregnancies?

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