



Titolo: Management of obstetrics tears

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ABSTRACT

Objective: Aim of the study is to analyse the literature about the management of obstetric tears, in order to optimize clinicians work and women perineal care after spontaneous delivery.

Methodology: Review of literature

Results: After a correct definition of obstetric injuries (1,2,3,4, degree), we describe main risk factors (birth weight, nulliparity, induction of labour, epidural analgesia), the role of episiotomy (midline or mediolateral one), the correct clinical conduction of labour in the care of perineum and the principles and techniques (over lapping or end-to-end techniques, for sphinterial repair) of obstetric suturing. We define also the correct clinical management of severe obstetric injuries repair (suture as soon as possible to reduce bleeding and risk of infection, check equipment and count swabs before starting the procedures, good lighting, ask for more experienced assistance if in doubt regarding the extent of trauma or structures involved, use general anesthesia, ensure good anatomical alignment of the wound, rectal examination after completing the repair of III-IV degrees) and the corret management in postnatal period (follow up in prevision of other pregnancies).

Conclusions: Improving surgical skills of clinicians could preserve perineal dysfunction.



OBJECTIVE

Perineal repair after episiotomy or spontaneous obstetric laceration is one of the most common surgical procedures among gynaecologists. It is estimated that 23% of women experience superficial dyspareunia up to three months post-partum; large prospective studies have shown that up to 25% of primiparous women experience altered fecal incontinence postnatally and up to one-third have evidence of some anal sphincter trauma after first vaginal delivery.

Adopting uniform definitions for perineal injuries facilitates future audit and risk management. In the present paper the classification described by Sultan and adopted by RCOG and the International Consultation on Incontinence is reported.

Aim of the study is to analyse the literature about management of obstetric tears, in order to optimize clinical practice.

METHOD

Review of literature on PubMed between June and December 2015.

RESULTS

We reviewed:

- **ANATOMICAL RISK FACTOR** in perineal injuries as length of perineal body inferior to 2.5 cm, or position of Hart's line, or vaginal wide measure;
- **OBSTETRICAL RISK FACTOR**: prolonged labour, large size of the fetal head, birth weight over 4 kg, nulliparity, induction of labour, second stage longer than 1 hour, persistent occipitoposterior position, midline episiotomy, epidural analgesia, forceps or VEM delivery.

The role of episiotomy has been discussed. Today, the indications for episiotomy are non-reassuring fetal heart rate pattern, shoulder dystocia, or operative vaginal delivery.

Episiotomy hasn't a protective role versus severe obstetrical tears, standing at scientific evidences.

Evidence based medicine does not support specific pushing techniques or positions for the protection of the perineum during active pushing. High level evidence reports no significant difference between the hands-on or the hands-off technique.



We observe also the literature reports about principles of suturing. In term of lasting performance, the suture materials usually chosen are absorbable, based on the reduction of entire tensile strength within 2 to 3 months. Catgut, though presently not available in European countries, is still being used in some under-resourced countries.

Suture materials for perineal lacerations repair are:

- coated polyglactin 910;
- fast-absorbing coated polyglactin;
- standard polyglycolic acid;
- polyglycomer 631.

Currently available multifilament sutures usually tend to exhibit more favourable handling properties and material flexibility than comparably strong monofilament materials.

There is no difference between fast-absorbing and standard synthetic sutures in terms of women experiencing pain. However women sutured with fast-absorbing synthetic sutures are more likely to have gaping wound edges up to 10 days post delivery. No significant differences are reported for long-term pain or dyspareunia.

Some basic principles should be observed when performing perineal repairs:

1. suture as soon as possible;
2. good lighting is essential;
3. ask for more experienced assistance if in doubt regarding the extent of trauma or structures involved;
4. difficult trauma should be repaired under general anesthesia;
5. ensure good anatomical alignment of the wound;
6. rectal examination after completing the repair of III-IV degrees.

Regarding the technique of suturing, the continuous technique requires less repair time, less suture material and less short term post partum pain. Furthermore, if the continuous suture is used for all layers (vaginal, perineal muscles and skin) the benefit in term of reducing pain is even greater.

The nonlocking continuous suture is recommended for repairing of vagina and perineal muscles.

Repair of a fourth-degree laceration requires approximation of the rectal mucosa, internal anal sphincter, and external anal sphincter. The anal epithelium is repaired with interrupted 3-0 polyglactin 910 suture. Internal and external anal sphincter are repaired with interrupted 3-0 polyglactin 910 or 3-0 polyglycomer 631 suture. No differences are found in term of anal



incontinence, perineal pain or suture migration. There are two repair techniques of the anal sphincter which were first described by Sultan. If the injury to the anal mucosa or internal anal sphincter (IAS) is identified it should be repaired before the external anal sphincter (EAS).

The overlap technique for repair of consist in lay approximately 2 cm of one end of the EAS over the other end in a "double breasted jacket" fashion.

The end-to-end repair for EAS consists in apposition of three or four interrupted mattress sutures. The vaginal mucosa and perineal muscles should then be repaired according to the previous recommendation.

CONCLUSIONS:

Optimal postnatal care requires health professional's specific expertise, organized in a multidisciplinary team approach that aims to minimize perineal morbidity. The most important approach to obstetrical tears is to repair with expertise and to follow patients with severe obstetrical tears, in order to prevent, and eventually to care, pelvic floor disorders related with perineal tears at childbirth. Every health professional, involved in obstetric care, might have to improve surgical and rehabilitative skills.



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