INTRAPARTUM CARE

PERINEAL TRAUMA: MANAGEMENT OF THIRD & FOURTH DEGREE

Key Words: Third degree tear, perineum, perineal tear, fourth degree tear, 3rd degree, 4th degree, perineal trauma

PURPOSE

- To provide guidance on the management and post repair care of obstetric anal sphincter injury.

BACKGROUND

Obstetric damage to the anal sphincter includes both third and fourth degree perineal tears.[1, 2] Third degree perineal tears are defined as partial or complete disruption of the anal sphincter muscles, which may involve either or both the external anal sphincter (EAS) and internal anal sphincter (IAS) muscles.[1]

The types of third degree tears are:

- 3a: Less than 50% of EAS thickness torn
- 3b: More than 50% EAS thickness torn
- 3c: Both EAS and IAS torn.[2]

A fourth degree tear injures the anal sphincter muscles with a breach of the ano-rectal mucosa.[1, 2]

RISK FACTORS

There are risk factors associated with obstetric anal sphincter injury, however known risk factors do not always allow tear prediction or prevention.[1, 3] Taking an overall risk of 1% of vaginal births, the following factors are associated with an increased risk of a third degree tear[1, 3]:

- Birth weight > 4kg[1-3]
- Shoulder dystocia[1, 3]
- Midline episiotomy[1-3]
- Persistent occipito-posterior position[1-3]
- Induction of labour[1, 3]
- Second stage > 1 hour[1, 3]
- Nulliparity[1, 3]
- Forceps birth[1-4]
- Vacuum birth[3, 5]

Note: Further research is required to identify preventative interventions to protect the perineum.[1, 6] There is support for the use of warm perineal compresses as a second stage intervention to reduce the risk of perineal trauma.[6]

KEY POINTS

1. If there is perineal injury then explain the importance and gain the woman's consent to perform a rectal examination. If there is a tear that involves only the rectal mucosa, and there is an intact anal sphincter complex (Buttonhole tear), then this should be documented as a separate entity.[1] If not identified and repaired, it may cause a rectovaginal fistulae.[1]
2. If there is doubt to the degree of third degree tear, classify it to the higher degree.[1]
3. When an episiotomy is indicated (e.g. if indicated at an instrumental birth[5, 7]), carefully angling the cut away from the midline using the mediolateral technique is recommended.[1] A lower risk of third degree tear is associated with a larger angle of episiotomy[8] (i.e. at the 8 o'clock position).
4. Provide a systematic examination, for all women having a vaginal birth with evidence of genital trauma, to assess the degree of trauma prior to suturing.[1, 7, 9]
5. All women who had an operative vaginal birth or experienced perineal injury should be examined by an experienced practitioner trained in the recognition and management of perineal tears.[3, 7]
6. Repair of third and fourth degree tears needs to be carried out by an appropriately trained practitioner, in an environment that provides adequate lighting and visualisation of the perineum[1, 3]
7. Third and fourth degree repairs should be conducted in the operating theatre where there is appropriate lighting, aseptic conditions, instruments and assistance.[1] Additionally, adequate anaesthesia (regional or general) is available, allowing the anal sphincter to relax which is essential for the retrieval of the retracted torn ends of the anal sphincter, for realignment and repair without tension.[1, 10]

8. During the repair consent process the woman should be informed that the extent of her perineal/anal trauma might not be known until she is assessed under adequate anaesthesia.[11]
9. A single pre-operative dose of cephazolin 2g IV is recommended before the repair of a third and fourth degree tear. This should be given as early as possible before repair (ideally 15 to 30 minutes prior to the commencement of the operative repair).[12]
10. The role of post-operative antibiotic therapy is unclear, but therapy is recommended following anal sphincter repair because infection in this setting carries a high risk of anal incontinence and fistula formation.

Use:

- Amoxycillin + clavulanate 875+125 orally, 12 hourly for 7 days*

***For patients hypersensitive to penicillins (excluding immediate hypersensitivity) use:**

- Cephalexin 500mg orally, 6 hourly for 7 days
  Plus
- Metronidiazole 400mg orally, 12 hourly for 7 days

***For patients with immediate hypersensitivity to penicillins use:**

- Trimethoprim + sulfmethoxazole 160+800mg orally 12 hourly for 7 days
  Plus
- Metronidazole 400mg orally, 12 hourly for 7 days

11. Suture as soon as possible after birth[2]- it is less painful and reduces the risk of infection. Following a water birth, it is advisable to delay suturing for 1 hour following the birth.
12. Documentation of the repair should include the anatomical structures involved, repair method, suture materials used, and account for instruments, sharps and swabs,[1] and level of supervision.[3]
13. It is no longer necessary for women to remain in hospital until their bowels have opened.

PROCEDURE

SUTURE MATERIAL

Rapidly absorbed suture material is **not** appropriate for 3rd and 4th degree tears. Use a slow absorbing suture material,[11] such as 2/0 or 3/0 Polysorb.

METHOD OF CHOICE FOR THE REPAIR

- A continuous non locking suturing technique to oppose each layer (vaginal tissue, perineal muscle and skin) is associated with less short term pain[13] compared to traditional interrupted method.
- Using a subcuticular method to the skin avoids the collections of nerve endings found in the superficial skin layer; in addition, the reactionary oedema is transferred through the whole length of the suture rather than interrupted sutures which are transverse across the wound.[14]

POST REPAIR MANAGEMENT

1. Intermittent ice therapy to decrease swelling and provide comfort[3, 7, 15] for the initial 48-72 hours.[16]
2. In-dwelling catheter for 24 hours or until swelling subsides. See also Obstetrics & Midwifery: Postnatal Care, Routine: Care of Mother on the Postnatal Ward: Subsequent Care: Bladder Care.
3. Adequate analgesia.[7, 16, 17] Avoid codeine containing analgesics as they may lead to constipation.[7]
4. Regular rectal analgesia should be avoided.[3]
5. Laxatives or stool softeners are advised for 7-10 days[11] to reduce the incidence of postoperative straining and wound dehiscence.[1, 3] It is also important that women remain well hydrated.[3]

6. Ask the woman whether she has any concerns about the healing process of the perineal wound, including perineal pain, discomfort, stinging, or offensive odour.
7. If the woman reports having pain or discomfort, offer to assess the perineum.[7]
8. Encourage the woman to shower at least twice daily for perineal comfort.[3]
9. Advise the woman to:
    - Keep the perineum clean and dry[16]: Change her sanitary pads 2-3 hourly
    - Wash and dry her perineum after each void and bowel action
    - Avoid salt baths, powders or steroid creams
    - Maintain good personal hygiene during healing, a healthy diet and to report any concerns[7].
10. All women with third and fourth degree tears shall be referred for physiotherapy follow up.[1, 3]
11. Provide information on pelvic floor muscle exercises.[1, 3, 16]
12. Advise the woman of:
    - The outcomes of anal sphincter injury[1]
    - Prognosis- that after EAS, 60-80% of women are asymptomatic at 12mths[1]
    - Any signs of ongoing symptoms or consequences[1]
    - Resuming sexual intercourse and dyspareunia management[3]
    - Future management and the importance of follow-up[1]
    - The effect of the injury on subsequent pregnancy management[1, 3].
13. Prior to discharge, all women who have sustained a third degree tear shall be advised to see their GP at 6 weeks and again at 3 months. Give these women a patient information card[1] (KE314).
14. Prior to discharge all women who have sustained a fourth degree tear should have a gynaecological clinic appointment made for 6-12 weeks postpartum with a consultant obstetrician/ gynaecologist,[1] unless an earlier follow up is indicated.
15. At the woman's follow up, if she is still experiencing incontinence or pain, then consider referral to a specialist gynaecologist or colorectal surgeon for endoanal ultrasonography and anorectal manometry.[1, 3]

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National Standards – 1 Clinical Care Is Guided by Current Best Practice
3 Preventing and Controlling Healthcare Associated Infections
4 Medication Safety

Legislation - Nil
Related Policies - Nil
Other related documents – KEMH Clinical Guidelines: Bladder Care; Perineal Care

RESPONSIBILITY	
Policy Sponsor	**Nursing & Midwifery Director OGCCU**
Initial Endorsement	September 2006
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