Società Italiana di Urodinamica
Continenza Neurourologia Pavimento Pelvico

Corso SIUD Teorico-Pratico
Lacerazioni Perineali Ostetriche
14 Dicembre 2018 | 1° Edizione
Milano, 15 Dicembre 2018 | 2° Edizione

Società Italiana di Urodinamica
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Corso SIUD Teorico-Pratico
Lacerazioni Perineali Ostetriche
Milano, UNA Scandinavia Hotel
14 Dicembre 2018 | 1° Edizione
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Presidenti: Irene Cetin, Mauro Busacca
Direttore del Corso: Marco Soligo

Il protocollo di riparazione chirurgica delle lacerazioni perineali secondo RCOG e risultati delle riparazioni

MAURIZIO SERATI
Associate Professor - Urogynecology
University of Insubria - Varese

Società Italiana di Urodinamica
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Royal College of Obstetricians & Gynaecologists

The Management of Third- and Fourth-Degree Perineal Tears

Green-top Guideline No. 29

June 2015

RCOG

Royal College of Obstetricians and Gynaecologists

THE MANAGEMENT OF THIRD- AND FOURTH-DEGREE PERINEAL TEARS

MARCH 2007

JUNE 2015

Società Italiana di Urodinamica
Continenza Neurourologia Pavimento Pelvico

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LACERAZIONI PERINEALI

1. DIMENSIONI DEL PROBLEMA
2. CLASSIFICAZIONE
3. FATTORI DI RISCHIO
4. PREVENZIONE
5. DIAGNOSI
6. TECNICA CHIRURGICA
7. MANAGEMENT POST-OPERATORIO
8. MATERIALI
9. COMPETENZE CHIRURGICHE
10. PARTI SUCCESSIVI
11. IL PERCORSO RIABILITATIVO

Royal College of Obstetricians and Gynaecologists

Linee guida RCOG

Royal College of Obstetricians & Gynaecologists

Corso SIUD Teorico-Pratico
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Classification of evidence levels

Ia	Evidence obtained from meta-analysis of randomised controlled trials.
Ib	Evidence obtained from at least one randomised controlled trial.
IIa	Evidence obtained from at least one well-designed controlled study without randomisation.
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study.
III	Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.
IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities.

Grades of recommendations

A	Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (Evidence levels Ia, Ib)
B	Requires the availability of well controlled clinical studies but no randomised clinical trials on the topic of recommendations. (Evidence levels IIa, IIb, III)
C	Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (Evidence level IV)

Good practice point

✓	Recommended best practice based on the clinical experience of the guideline development group.

Dimensioni del problema

- Incidenza di lacerazioni coinvolgenti lo sfintere anale in letteratura: 0.7% - 18% !!!
- Incontinenza anale (IA) e/o urgenza fecale *de novo* post-partum: 10% - 25%!!!
- Lesioni sfinteriali occulte : 35% - 40%

Serati et al Acta Obstet Gynecol. 2008; 87: 313-18

- Rischio relativo di sviluppare IA dopo il parto almeno doppio in chi abbia riportato lesioni sfinteriali (anche se occulte)

- **ENGLAND: from 1,8 % to 5,9% (2000-2012)**
- **INCIDENCE: 2,9% (0-8%)**
- **6,1%PRIMIPARAE**
- **1,7% MULTIPARAE**

3 X!!

LACERAZIONI PERINEALI

- **CLASSIFICAZIONE:**

Royal College of Obstetricians & Gynaecologists

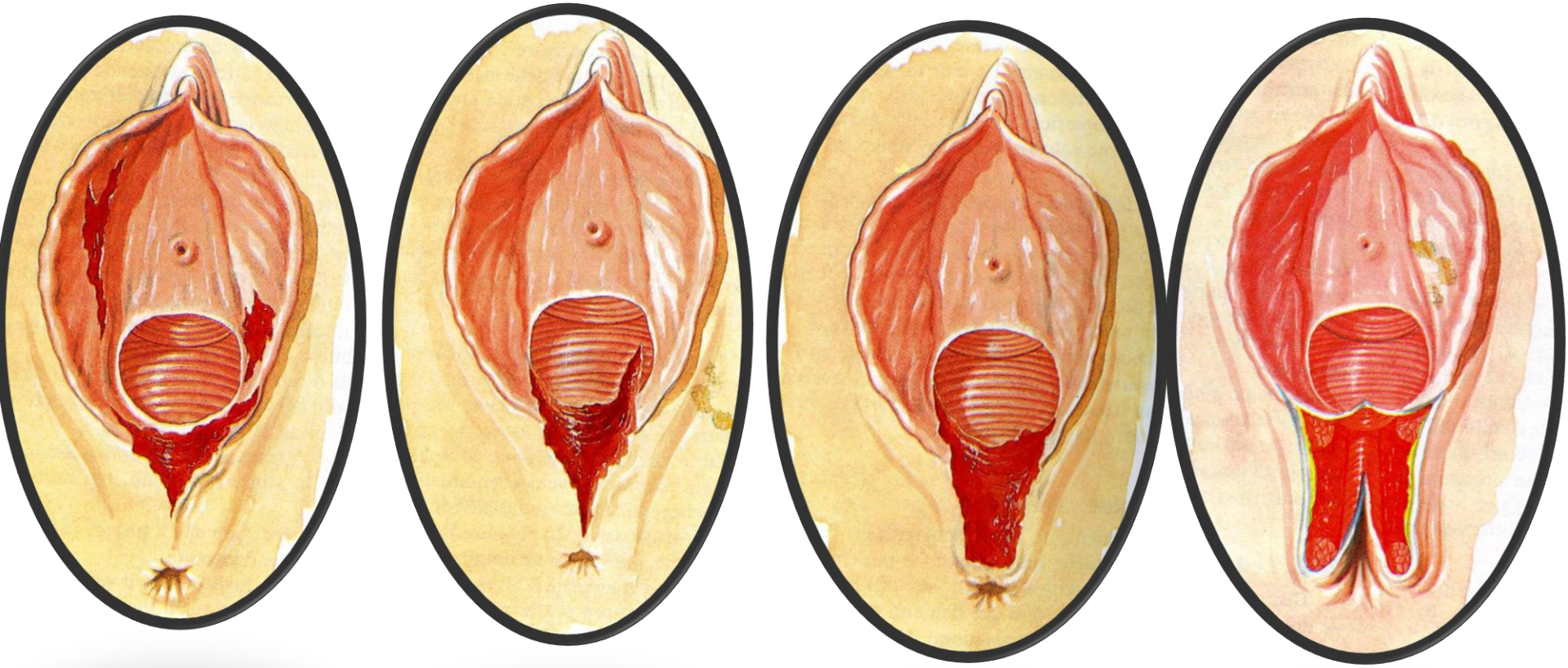
First degree	Injury to perineal skin only.
Second degree	Injury to perineum involving perineal muscles but not involving the anal sphincter.
Third degree	Injury to perineum involving the anal sphincter complex: 3a: Less than 50% of EAS thickness torn. 3b: More than 50% of EAS thickness torn. 3c: Both EAS and IAS torn.
Fourth degree	Injury to perineum involving the anal sphincter complex (EAS and IAS) and anal epithelium.

C Livello evidenza IV

If there is any doubt about the degree of third-degree tear, it is advisable to classify it to the higher degree rather than the lower degree!

Sultan AH Clinical Risk 1999
29th RCOG guidelines

LACERAZIONI PERINEALI



I grado

II grado

III grado

IV grado

Classificazione

- L'IAS riveste un ruolo specifico nel meccanismo di continenza anale
- Studi dimostrano che donne con danno a IAS e EAS hanno maggior rischio di incontinenza anale rispetto a donne con danno solo a EAS
- Lacerazioni della sola mucosa anale con sfintere anale integro devono essere considerate come un'entità a sé stante

Classificazione

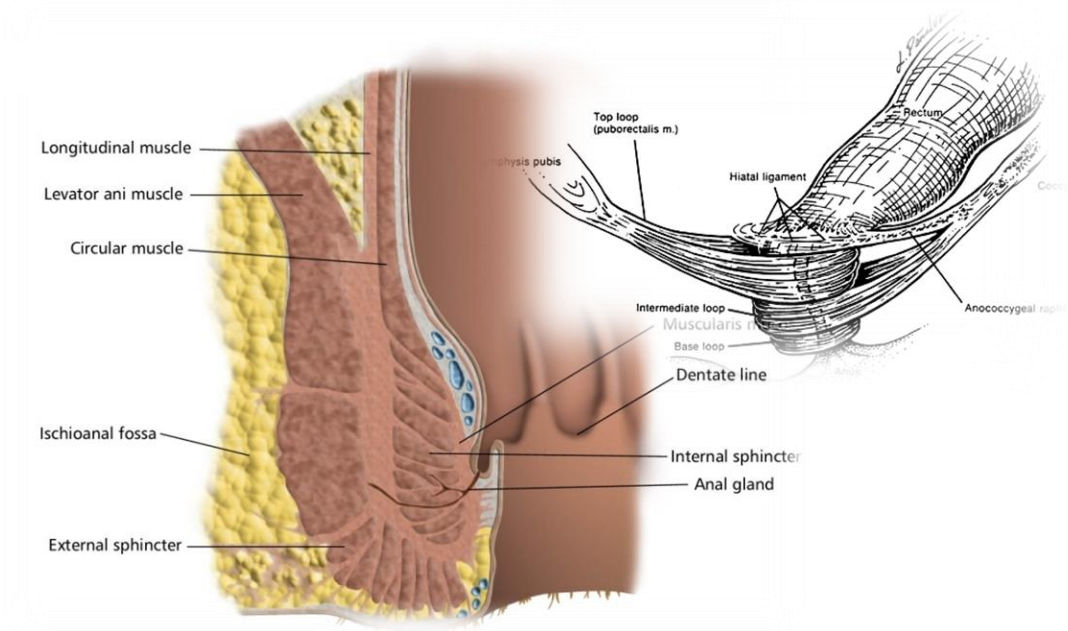
Anatomia dello sfintere anale

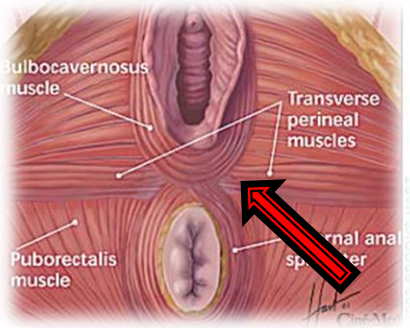
EAS

- These subdivisions are not easily demonstrable both clinically and by imaging (subcutaneous portion easier to identify)
- Bulbospongiosus and the transverse perinei fuse with the EAS at the perineal body

IAS

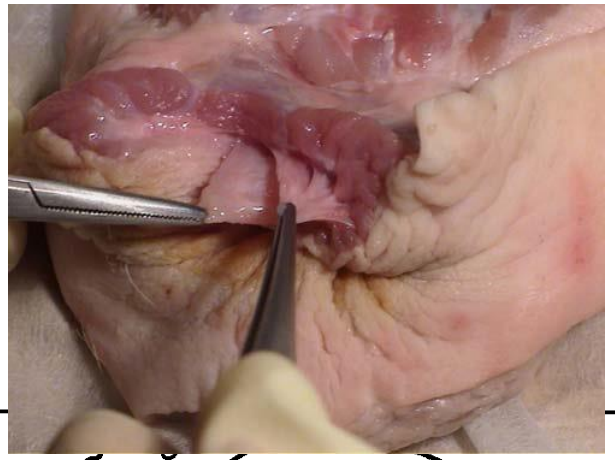
- Thickened continuation of the circular smooth muscle of the bowel



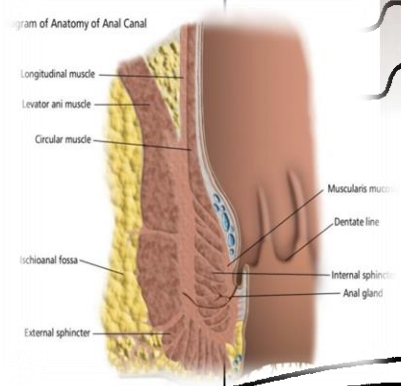


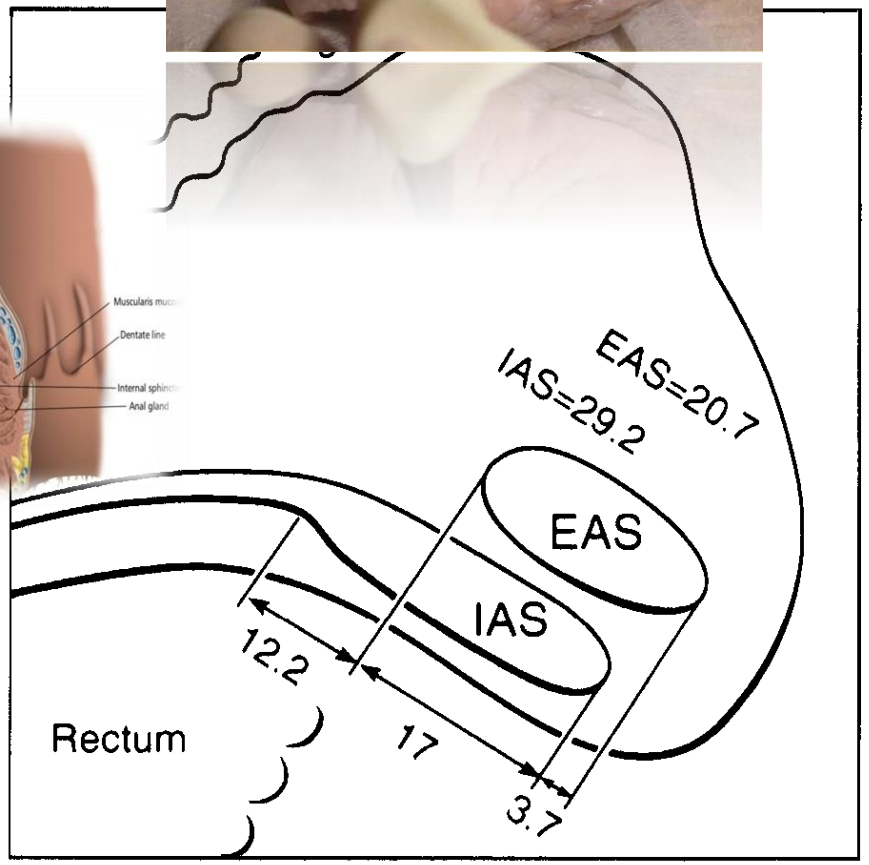
Classificazione

Anatomia dello sfintere anale



- **ANAL CANAL 4 cm**
  - Distance to the upper aspect of the puborectalis to the anal verge
- **IAS**
  - Always extend above EAS
  - Ends 6-8mm above the anal margin at the juction of subcutaneous part of the EAS
  - Overlaps with EAS by 17 mm
  - Similar in legth and thickness between genders
  - 1.5-4 mm thickness, 30 mm high
- **EAS**
  - Clear division in three parts posteriorly and laterally
  - In female is shorter anteriorly → 14mm vs 27mm
  - 4mm thickness;





Delancey et al. Obstet Gynecol 1997;90(6):924–7
Bennet Semin Ultrasund CT MRI 2008;29:400–8

Patophysiology of Anal Sphincter

- **IAS**
  - Circular smooth muscle
  - Remains in a tonic contraction
  - Accounts for **50-85% of the resting tone**

⟺

- Passive soiling
- Flatus incontinence

- **EAS**
  - Circular striated muscles
  - **Up to the 30% of the uncouncious resting tone**
  - Reflex arch

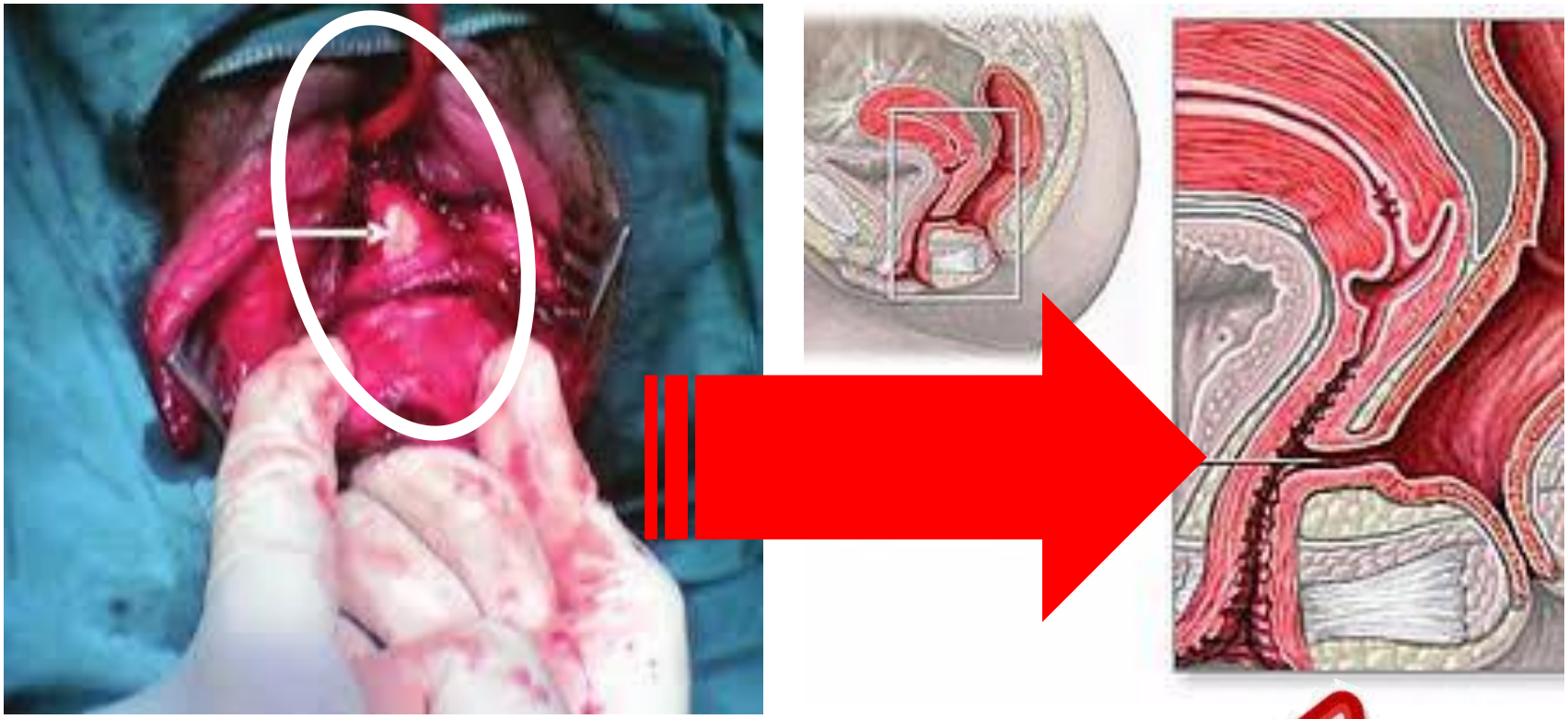
⟺

- Urgency incontinence
- Stool incontinence

- **EXPANSILE VASCULAR ANAL CUSHIONS**
  - 15% of the basal resting tone

Fernando, Sultan et al. 0bstet Gynecol 2006;107:1261-8

Rectal buttonhole tear



- **NOT INVOLVED EXTERNAL SPHINCTER COMPLEX!**
- **«ONLY» RECTAL MUCOSA**

FATTORI DI RISCHIO

Fattori di rischio ostetrici per lacerazioni III° - IV°

Can obstetric anal sphincter injury be predicted and prevented?

Clinicians need to be aware of the risk factors for obstetric anal sphincter injury but also recognise that known risk factors do not readily allow its prediction or prevention. ✓

Livello evidenza IIb, III

- birth weight over 4 kg (up to 2%)
- persistent occipitoposterior position (up to 3%)
- nulliparity (up to 4%)
- induction of labour (up to 2%)
- epidural analgesia (up to 2%)
- second stage longer than 1 hour (up to 4%)
- shoulder dystocia (up to 4%)
- midline episiotomy (up to 3%)
- forceps delivery (up to 7%).[1-19]

Overall risk of 1% of vaginal deliveries

L'importante è farlo bene...

IL TAGLIO

Can obstetric anal sphincter injury be predicted and prevented?

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Overall risk of 1% of vaginal deliveries

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- forceps delivery (up to 7%).[1-19]

22 articoli

- NEONATAL BIRTH WHEIGHT
- MEDIAN EPISIOTOMY (NOT MEDIOLATERAL)
- INSTRUMENTAL DELIVERY

651934 donne

2,4%

LACERAZIONI III IV GRADO

- PRIMIPARITY
- ASIAN ETHNICITY
- LABOR INDUCTION-AUGMENTATION
- EPIDURAL ANESTHESIA
- PERSISTENT OCCIPUT POSTERIOR PRESENTATION

P<0.001

Fattori di rischio

European Journal of Obstetrics & Gynecology and Reproductive Biology 221 (2018) 139–143

Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Full length article

Incidence and risk factors of third- and fourth-degree perineal tears in a single Italian scenario

Matteo Frigerio[a], Stefano Manodoro[b,*], Davide P. Bernasconi[c], Debora Verri[a,c], Rodolfo Milani[a,c], Patrizia Vergani[a,c]

[a] ASST Monza, Ospedale San Gerardo, Monza, Italy
[b] AUSL Romagna, Ospedale Infermi, Rimini, Italy
[c] School of Medicine and Surgery, Università degli Studi di Milano-Bicocca, Italy

- 62 out of 10133 patients (0.61%) had a severe perineal tear.

- **Multivariate analysis identified:**

-moderate/severe obesity (OR = 2.8),
-instrumental delivery (OR = 2.6)
-birth weight (OR = 1.1/hg)
as independent risk factors.

- **Univariate analysis identified:**

-gestational age >40 weeks,
-nulliparity,
-moderate/severe obesity,
-oxytocin use in pushing stage
- Sinciput presentation,
-instrumental delivery,
-shoulder dystocia,
- pushing stage 90 min,
lithotomy position,
-birth
-weight >4 kg,
-head circumference at birth >34 cm
-length at birth >50 cm as risk factors

L’ostetrica può:

- ✓EPISIOTOMY
- ✓PERINEAL PROTECTION
- ✓WARM COMPRESS

L’ostetrica può:

- ✓EPISIOTOMY
- ✓PERINEAL PROTECTION
- ✓WARM COMPRESS

EPISIOTOMIA

Episiotomy

The evidence that episiotomy prevents OASIS and/or anal incontinence is conflicting. Hospital Episode Statistics data have shown that episiotomy is associated with the lowest risk of OASIS.[1] Some studies have shown a protective effect while others have not.[18–20]

However, there is evidence that a mediolateral episiotomy should be performed with instrumental deliveries as it appears to have a protective effect on OASIS.[1,10]

Evidence level 2-

Ventosa

News 2015

***MEDIOLATERALE NEL PARTO OPERATIVO*: RUOLO PROTETTIVO**

International Journal of Gynecology and Obstetrics 112 (2011) 220–224

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

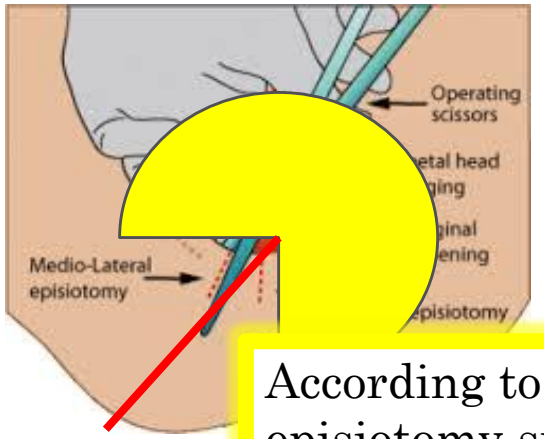
journal homepage: www.elsevier.com/locate/ijgo

CLINICAL ARTICLE

Evaluation of the incision angle of mediolateral episiotomy at 60 degrees

Vladimir Kalis [a,*], Jana Landsmanova [a], Barbora Bednarova [a], Jaroslava Karbanova [a], Katariina Laine [b], Zdenek Rokyta [a]

[a] Department of Obstetrics and Gynecology, University Hospital, Faculty of Medicine, Charles University, Pilsen, Czech Republic
[b] Department of Obstetrics, Oslo University Hospital, Oslo, Norway



45°-60°

NICE accredited
www.nice.org.uk/accreditation


fig. 3 - evidenziazione angolo episiotomia

According to Eogan et al., the incidence of OASIs with an episiotomy sutured angle of 25° was 10 %, and with a suture angle of 45°, the OASIs rate reduced to 0.5 %. Therefore,

A lower risk of third-degree tear is associated with a larger angle of episiotomy. In a prospective case–control study there was a 50% relative reduction in risk of sustaining third-degree tear observed for every 6 degrees away from the perineal midline that an episiotomy was cut.[25]

B

Evidence level IIa

Sultan et al BMJ 1994;308:887-91
Fernando et al BMC Health Serv Res 2002;2:9

160 between DOCTORS and MIDEWIVES

ANGLE 60° (58°-62°) → ONLY 15%

Int Urogynecol J (2015) 26:813–816
DOI 10.1007/s00192-015-2625-9

ORIGINAL ARTICLE

Cutting an episiotomy at 60 degrees: how good are we?

Madhu Naidu · Dharmesh S. Kapoor · Sarah Evans · Latha Vinayakarao · Ranee Thakar · Abdul H. Sultan

Received: 26 September 2014 / Accepted: 4 January 2015 / Published online: 6 February 2015

Abstract
Introduction and hypothesis Episiotomy is regarded as the most common maternal obstetric surgical procedure. It is associated with a significant increase in blood loss, lower pelvic floor muscle strength, dyspareunia, and perineal pain compared with a perineal tear. We tested the hypothesis that all

origination point of the episiotomy was 5 mm away from the midline (IQR 1–8 mm).
Conclusions This original observational study shows that doctors and midwives were poor at cutting at the prompted episiotomy angle of 60°. This highlights the need to develop structured training programmes to improve the visual accuracy of estimating angles or the use of fixed angle devices to help improve the ability to estimate the desired angle.

L’ostetrica può:

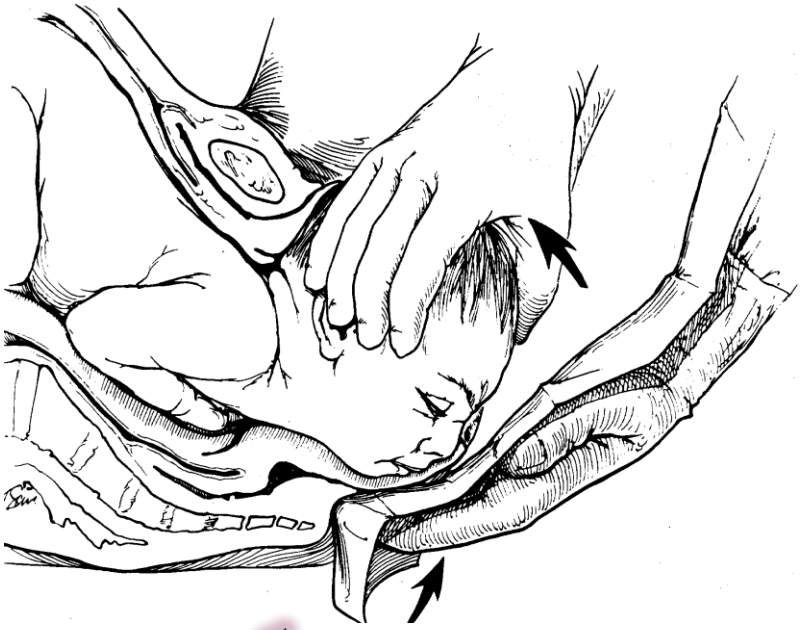
✓EPISIOTOMY

✓PERINEAL PROTECTION

✓WARM COMPRESS

«Hands ON- perineal support»

Evidence level 2+



- LEFT HAND SLOWING THE DELIVERY OF THE HEAD
- RIGHT HAND **PROTECTING THE PERINEUM**
- MOTHER **NOT** PUSHING WHEN HEAD IS CROWING
- THINK ABOUT EPISIOTOMY

News 2015

BMJ open

Incidence of obstetric anal sphincter injuries after training to protect the perineum: cohort study

Katariina Laine,[1,2] Finn Egil Skjeldestad,[3] Leiv Sandvik,[4] Anne Cathrine Staff[2,5]

L’ostetrica può:

✓EPISIOTOMY

✓PERINEAL PROTECTION

✓WARM COMPRESS

WARM COMPRESS

Evidence level 1++

PROJECT WARM

News 2015

evidence in 2012

of labour for

Perineal massage during antenatal period and in second stage of labour

Perineal massage during the last month of pregnancy has been suggested as a possible way of enabling perineal tissue to expand more easily during birth. The Cochrane review[33] of four trials (2497 women) showed that perineal massage undertaken by the woman or her partner was associated with an overall reduction in the incidence of trauma requiring suturing (four trials, 2480 women, RR 0.91, 95% CI 0.86–0.96, number needed to treat to benefit [NNTB] 15 [10–36]). Women practising perineal massage were less likely to have an episiotomy (four trials,

Evidence level 1–

Ruolo ostetrica

Cochrane Library

Cochrane Database of Systematic Reviews

Perineal techniques during the second stage of labour for reducing perineal trauma (Review)

Aasheim V, Nilsen ABV, Reinar LM, Lukasse M

- 20 studies (15,181 women)
- -MASSAGE , WARM COMPRESSES and DIFFERENT PERINEAL MANAGEMENT TECHNIQUES are widely used by midwives and birth attendants.

- MASSAGE and WARM COMPRESSES may **reduce** serious perineal trauma (third- and fourth-degree tears).
- HANDS-OFF TECHNIQUES may reduce the number of episiotomies but it was not clear that these techniques had a beneficial effect on other perineal trauma.
- There remains **uncertainty** about the value of other techniques to reduce damage to the perineum during childbirth.

Diagnosi

All women having a vaginal delivery with evidence of genital tract trauma should be examined systematically to assess the severity of damage prior to suturing.

C

6. Identification of obstetric anal sphincter injuries

6.1 How can the identification of obstetric anal sphincter injuries be improved?

All women having a vaginal delivery are at risk of sustaining OASIS or isolated rectal buttonhole tears. They should therefore be examined systematically, including a digital rectal examination, to assess the severity of damage, particularly prior to suturing.

✓

BEFORE SUTURING…

- Good exposure
- Good lighting
- Adequate analgesia
- Vaginal examination
- Rectal examination

RECTAL EXAMINATION

-Every woman

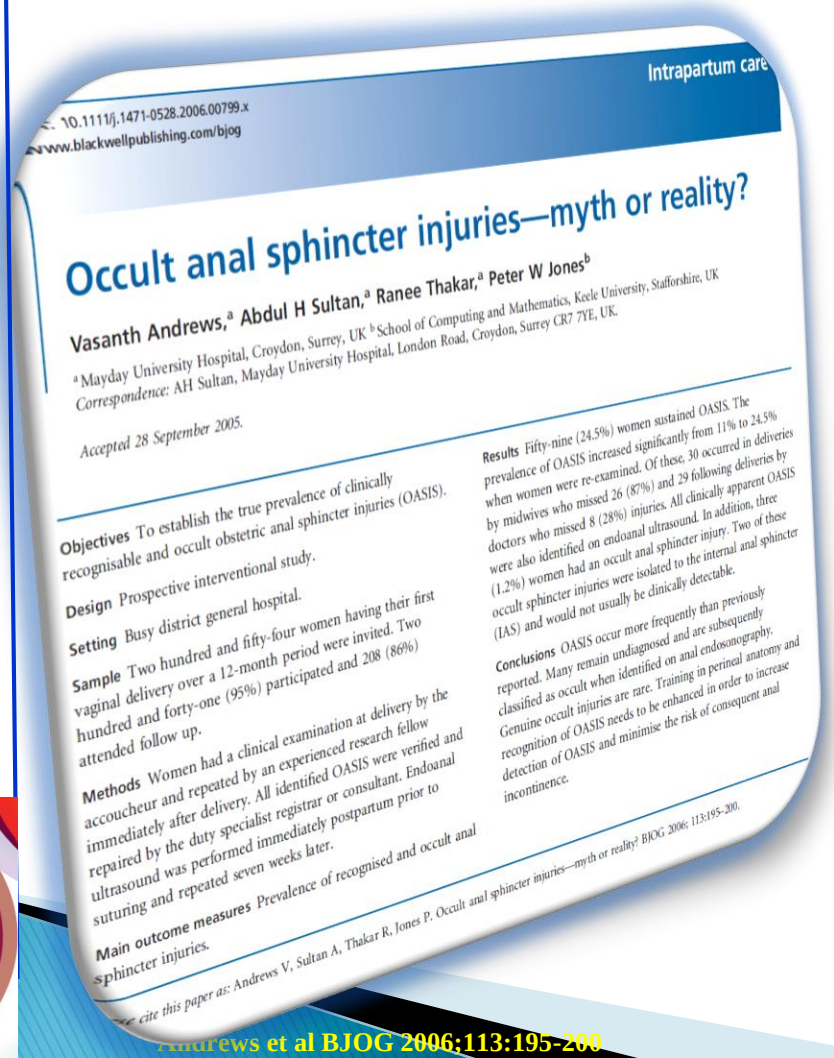
-Exclude buttonhole tear

-Diagnose/Exclude OASIS

-Pill-rolling motion

-Ask to contract the anal spincter

Diagnosi



Intrapartum care

10.1111/j.1471-0528.2006.00799.x
www.blackwellpublishing.com/bjog

Occult anal sphincter injuries—myth or reality?

Vasanth Andrews,[a] Abdul H Sultan,[a] Ranee Thakar,[a] Peter W Jones[b]

[a]Mayday University Hospital, Croydon, Surrey, UK [b]School of Computing and Mathematics, Keele University, Staffordshire, UK
Correspondence: AH Sultan, Mayday University Hospital, London Road, Croydon, Surrey CR7 7YE, UK.

Accepted 28 September 2005.

Objectives To establish the true prevalence of clinically recognisable and occult obstetric anal sphincter injuries (OASIS).

Design Prospective interventional study.

Setting Busy district general hospital.

Sample Two hundred and fifty-four women having their first vaginal delivery over a 12-month period were invited. Two hundred and forty-one (95%) participated and 208 (86%) attended follow up.

Methods Women had a clinical examination at delivery by the accoucheur and repeated by an experienced research fellow immediately after delivery. All identified OASIS were verified and repaired by the duty specialist registrar or consultant. Endoanal ultrasound was performed immediately postpartum prior to suturing and repeated seven weeks later.

Main outcome measures Prevalence of recognised and occult anal sphincter injuries.

Results Fifty-nine (24.5%) women sustained OASIS. The prevalence of OASIS increased significantly from 11% to 24.5% when women were re-examined. Of these, 30 occurred in deliveries by midwives who missed 26 (87%) and 29 following deliveries by doctors who missed 8 (28%) injuries. All clinically apparent OASIS were also identified on endoanal ultrasound. In addition, three (1.2%) women had an occult anal sphincter injury. Two of these occult sphincter injuries were isolated to the internal anal sphincter (IAS) and would not usually be clinically detectable.

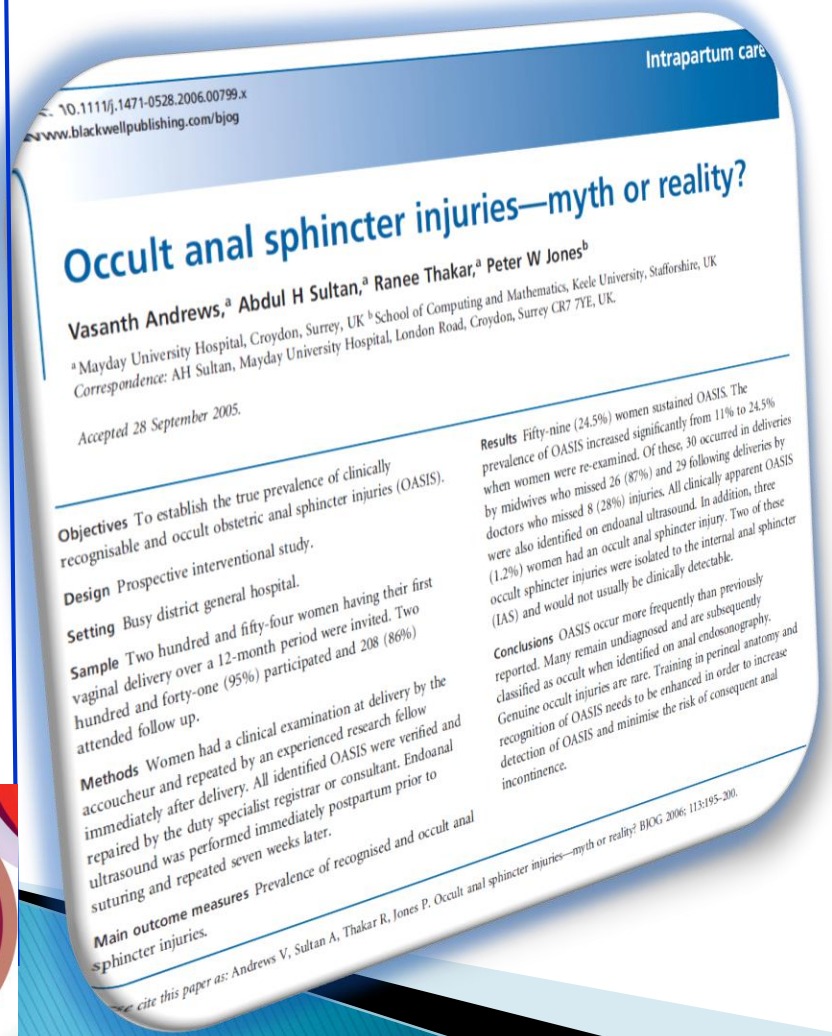
Conclusions OASIS occur more frequently than previously reported. Many remain undiagnosed and are subsequently classified as occult when identified on anal endosonography. Genuine occult injuries are rare. Training in perineal anatomy and recognition of OASIS needs to be enhanced in order to increase detection of OASIS and minimise the risk of consequent anal incontinence.

To cite this paper as: Andrews V, Sultan A, Thakar R, Jones P. Occult anal sphincter injuries—myth or reality? BJOG 2006; 113:195–200.

- It was alarming to find that **87% and 27%** of OASIS were not identified by midwives and doctors, respectively

Andrews et al BJOG 2006;113:195-200

Diagnosi



Intrapartum care

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Vasanth Andrews,[a] Abdul H Sultan,[a] Ranee Thakar,[a] Peter W Jones[b]

[a]Mayday University Hospital, Croydon, Surrey, UK [b]School of Computing and Mathematics, Keele University, Staffordshire, UK
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- **The prevalence of OASIS increased from 11% to 24.5% (n=59/241) when a trained doctor re-examined post-partum women (p< 0.0001)**
- **All Clinically diagnosed OASIS were identified by US (3 only by US, 2 only IAS after forceps)**

Andrews et al BJOG 2006;113:195-200

Diagnosi

Can we improve on the diagnosis of third degree tears?

Katie M. Groom*, Sara Paterson-Brown

91% of doctors and 60% of midwifes indicated an inadequate training in identifying third degree tears

Groom et al Euro J Obstet Gynecol and Reprod Biology 2002;101:19-21

Outcome of primary repair of obstetric anal sphincter injuries (OASIS): does the grade of tear matter?

A.-M. ROOS, R. THAKAR and A. H. SULTAN

OUTCOMES OF PRIMARY OASIS REPAIR

39% (range 15–61%) mean prevalence of AI

Sultan and Thakar In: Perineal and Anal Sphincter Trauma, Sultan Thakar, Fenner Springer-Verlag:London, 2007;33-51

34–92% US anal sphincter defects

Mackanzie et al. Colorectal dis 2004;6(2):92-6

Fitzpatrick et al. Europ J Obstt Gynecol Reprod Biol 2002;100:199-201

Due to an uncorrect diagnosis

Due to suboptimal repair

Ross et al. Ultras Obstet Gynecol 2010;36:368-74

Diagnosi

Table 2. Perineal Trauma and New Symptoms

	No symptoms *n* (%)	New symptoms *n* (%)	Total
Intact*	39 (97)	1 (3)	40
Second-degree tear*	17 (77)	5 (23)	22
Episiotomy	14 (87)	2 (13)	16
First-degree tear	18 (100)	0	18
Episiotomy and tear	4 (100)	0	4

* Fisher exact test: value = 9.697, *P* = .014.

P =0.01

OASIS UNDIAGNOSED AND WRONGLY CLASSIFIED

bstet Gyencol 2003;101:305-12

→ 16-fold inc ar (p< 0.05)

Gynecol Fertil 2000;28(1):6-13

Table 3. Rates of perineal trauma in deliveries conducted by doctors

	Delivering doctors diagnosis (%)	Research fellow diagnosis (%)
Intact perineum	0	0
First-degree tear	1 (1.5)	1 (1.5)
Second-degree tear	45 (66.2)	38 (55.9)
Third/Fourth-degree tear	22 (32.4)	29 (42.6)

Andrews et al BJOG 2006;113:195-200

Tecnica chirurgica

Repair of third- and fourth-degree tears should be conducted by an appropriately trained clinician or by a trainee under supervision. ✓

Repair should take place in an operating theatre, under regional or general anaesthesia, with good lighting and with appropriate instruments. If there is excessive bleeding, a vaginal pack should be inserted and the woman should be taken to the theatre as soon as possible. Repair of OASIS in the delivery room may be performed in certain circumstances after discussion with a senior obstetrician. ✓

News 2015

Figure of eight sutures should be avoided during the repair of OASIS because they are haemostatic in nature and may cause tissue ischaemia. ✓

A rectal examination should be performed after the repair to ensure that sutures have not been inadvertently inserted through the anorectal mucosa. If a suture is identified it should be removed. ✓

News 2015

Tecnica chirurgica

RECTAL MUCOSA

7.2 Which techniques should be used to accomplish the repair of the anorectal mucosa?

The torn anorectal mucosa should be repaired with sutures using either the continuous or interrupted technique. D

Traditionally, the technique described to repair the torn anal mucosa was to insert interrupted sutures with the knot tied within the anal canal. However, this was recommended when catgut was in use to minimise tissue reaction and infection.[39] With the availability of polyglactin suture material this is no longer necessary as it dissolves by hydrolysis. Whichever technique is used, figure of eight sutures should be avoided during repair of the anal mucosa as they can cause ischaemia.

Evidence level 4

D

Tecnica chirurgica

IAS

7.3 Which techniques should be used to accomplish the repair of the internal anal sphincter?

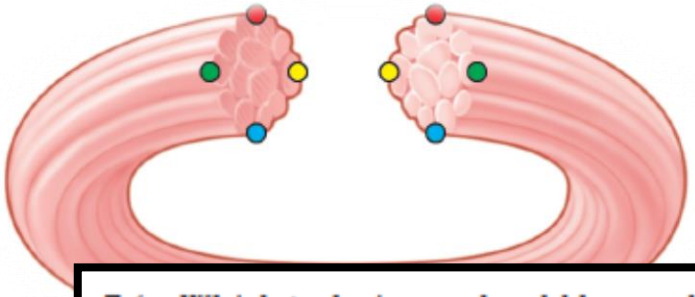
Where the torn IAS can be identified, it is advisable to repair this separately with interrupted or mattress sutures without any attempt to overlap the IAS.

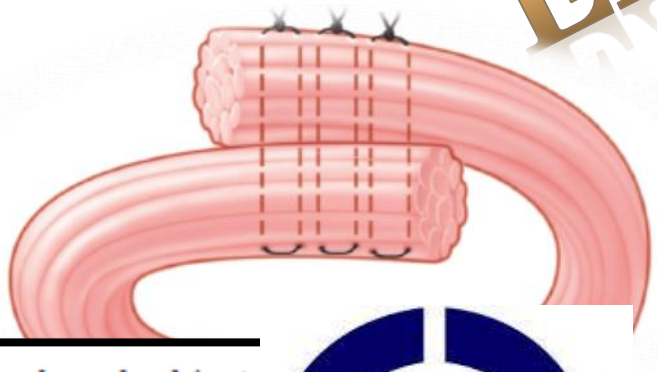
C

C

Tecnica chirurgica

EAS





7.4 Which techniques should be used to repair the external anal sphincte

For repair of a full thickness EAS tear, either an overlapping or an end-to-end (ap method can be used with equivalent outcomes.

For partial thickness (all 3a and some 3b) tears, an end-to-end technique should be u

A Cochrane review demonstrated no difference in outcomes between an end-t overlap repair and therefore the end-to-end technique can be used for all external sph

News 2015

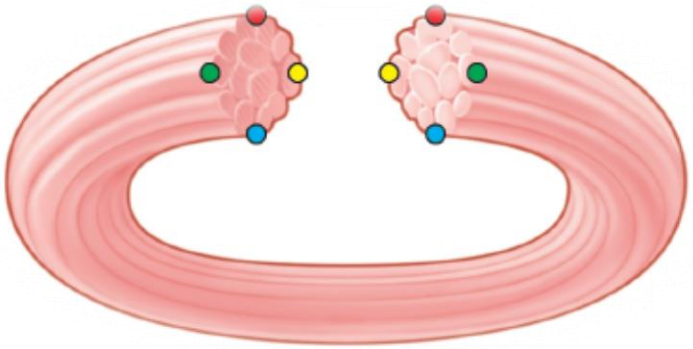
THE COCHRANE COLLABORATION®

588 WOMEN:
PERINEAL PAIN
DYSPAREUNIA
FLATUS INCONTINENCE
FAECAL URGENCY
ANAL INCONTINECE

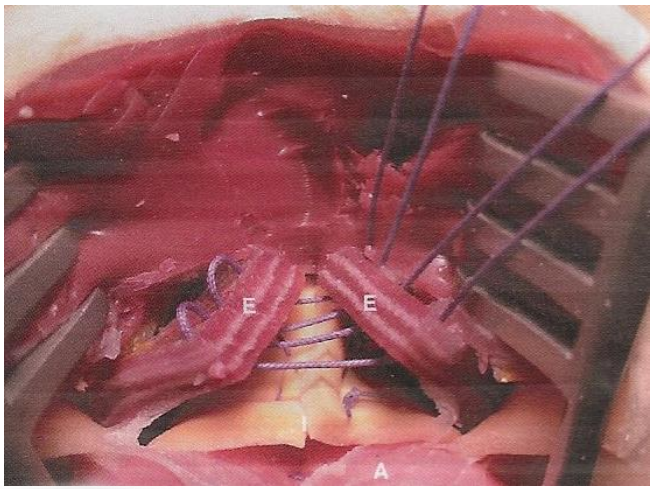
Tecnica chirurgica

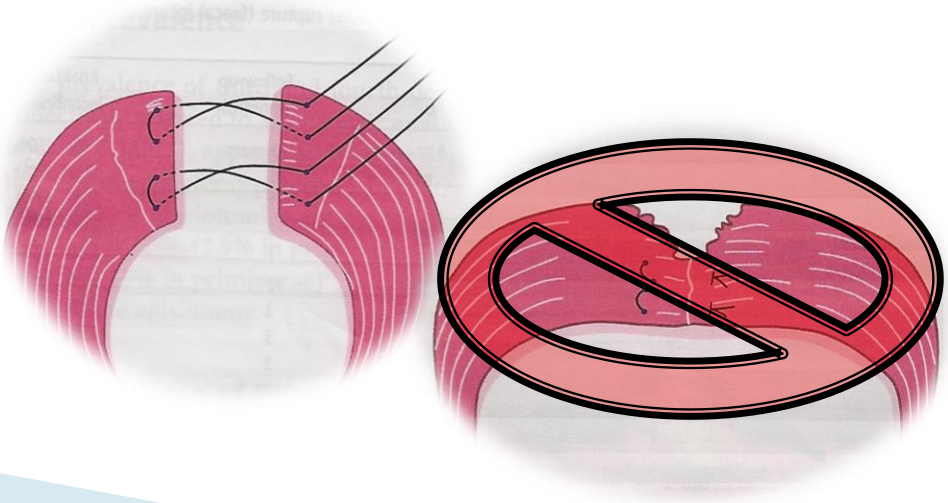
END–TO–END

EAS



Approximation of the torned edges with either interrupted or "figure–of–eight" sutures, without any overlap

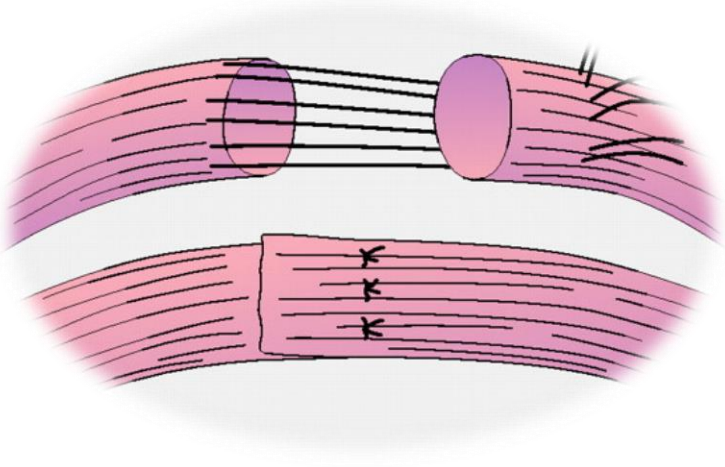


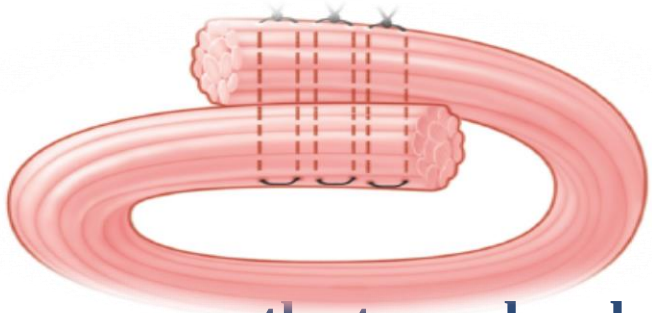


Tecnica chirurgica

EAS

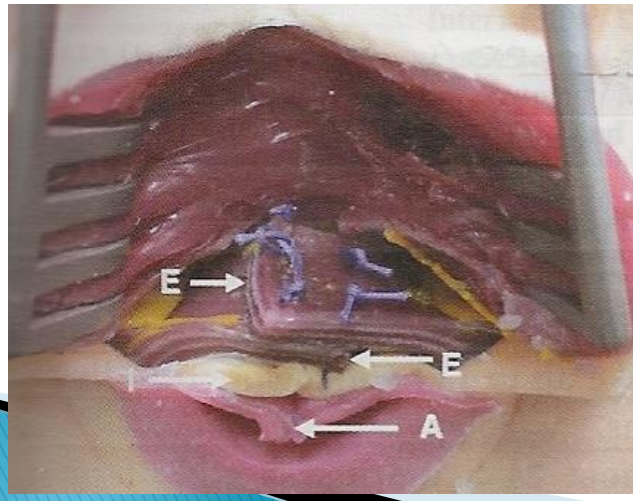
OVERLAPPING





the torned ends are brought together and sutured by overlapping one end of the muscle to the other in a “double-blreasted” fashion

Only if 3b or 3c



Tecnica chirurgica

EAS

AUTHORS' CONCLUSIONS

Implications for practice

The limited data available show that, compared to immediate primary end-to-end repair of obstetric anal sphincter injuries (OASIS), immediate primary overlap repair appears to be associated with reduced risk for faecal urgency, anal incontinence score and deterioration of anal incontinence symptoms. As the majority of the results were based on one small randomised controlled trial carried out by two experienced surgeons and the surgeon's experience is not addressed in any of the other two studies reviewed, it would be inappropriate to recommend one type of repair in favour of another.

Cochrane 2006; Issue 3:
Fernando et al. BJOG 2004;111:11151
Williams et al BJOG 2006;113(2):201-7
Fitzpatrick et al. Colorectal Dis 1999;1(Suppl1):10

- n=23 end-to-end

vs

n=18 overlap

No significant differences at 3 months follow-up

Garcia et al. Am J Obstet Gynecol 2005;192(5):1697-701

- n=64

AI at 12 months

24% end-to-end

vs

0% overlap

(p=0.0009)

Fernando, Sultan et al. Obstet Gynecol2006;107:1261-8

- N=149

Overlap vs end-to-end

At 6 months follow-up

64% vs 31% flatus incontinence

15% vs 8% fecal incontinence

Farrell et al. Obstet Gynecol 2010;116(1):16-24

Royal College of Obstetricians and Gynaecologists

MATERIALS

3-0 polyglactin should be used to repair the anorectal mucosa as it may cause less irritation and discomfort than polydioxanone (PDS) sutures.	D
When repair of the EAS and/or IAS muscle is being performed, either monofilament sutures such as 3-0 PDS or modern braided sutures such as 2-0 polyglactin can be used with equivalent outcomes.	B
When obstetric anal sphincter repairs are being performed, the burying of surgical knots beneath the superficial perineal muscles is recommended to minimise the risk of knot and suture migration to the skin.	B

≠

2007

When repair of the EAS muscle is being performed, either monofilament sutures such as polydiaxanone (PDS) or modern braided sutures such as polyglactin (Vicryl®) can be used with equivalent outcome.	A
When repair of the IAS muscle is being performed, fine suture size such as 3-0 PDS and 2-0 Vicryl may cause less irritation and discomfort.	C

SURGICAL COMPETENCE

Obstetric anal sphincter repair should be performed by appropriately trained practitioners. D

Formal training in anal sphincter repair techniques should be an essential component of obstetric training. ✓

Postoperative management

The use of broad-spectrum antibiotics is recommended following repair of OASIS to reduce the risk of postoperative infections and wound dehiscence. B

The use of postoperative laxatives is recommended to reduce the risk of wound dehiscence. C

Bulking agents should not be given routinely with laxatives. B

Local protocols should be implemented regarding the use of antibiotics, laxatives, examination and follow-up of women with obstetric anal sphincter repair. ✓

News 2015

Women should be advised that physiotherapy following repair of OASIS could be beneficial. ✓

Women who have undergone obstetric anal sphincter repair should be reviewed at a convenient time (usually 6–12 weeks postpartum). Where possible, review should be by clinicians with a special interest in OASIS. ✓

If a woman is experiencing incontinence or pain at follow-up, referral to a specialist gynaecologist or colorectal surgeon should be considered. ✓

Postoperative management

10. Postoperative management

10.1 How should women with obstetric anal sphincter injury be managed postoperatively?

The use of broad-spectrum antibiotics is recommended following repair of OASIS to reduce the risk of postoperative infections and wound dehiscence. B

The use of postoperative laxatives is recommended to reduce the risk of wound dehiscence. C

Bulking agents should not be given routinely with laxatives. B

Postoperative management

Antibioticoprofilassi

Antibiotic prophylaxis for third- and fourth-degree perineal tear during vaginal birth (Review)

Buppasiri P, Lumbiganon P, Thinkhamrop J, Thinkhamrop B

−**AIM OF THE STUDY:** to assess the **effectiveness of antibiotic prophylaxis** for reducing maternal morbidity and side effects in third- and four degree perineal tear during vaginal birth

-147 women (intervention group vs group of placebo)

-Single-dose, second-generation cephalosporin intravenously (**cefotetan or cefoxitin, 1 g, intravenously, or clindamycin, 900 mg intravenously if allergic to penicillin, in 100 mL of saline**) was used as the intervention to prevent perineal wound infection or disruption in the third- or fourth-degree perineal tear compared with placebo (100 mL of normal saline intravenously) .

-Perineal wound complications at **two weeks** postpartum in the treatment and control groups were four of 49 (8.2%) and 14 of 58 (24.1%) respectively (P = 0.037, risk ratio (RR) 0.34, 95% confidence interval (CI) 0.12 to 0.96)

-One hundred and twenty-eight women were checked at **six weeks** postpartum (19 of 147 (12.9%) did not come for follow-up at six weeks). There were perineal wound complications in four out of 55 (7.3%) and 14 out of 73 (19.2%) women in the treatment and control groups respectively, (P = 0.07, RR 0.38, 95% CI 0.13 to 1.09)

Postoperative management

Antibioticoprofilassi

Antibiotic prophylaxis for third- and fourth-degree perineal tear during vaginal birth (Review)

Buppasiri P, Lumbiganon P, Thinkhamrop J, Thinkhamrop B

-The result showed **fewer perineal wound complications in the intervention group at two weeks post partum**. There was no statistically significant difference in perineal wound complications before discharge and **at six weekes'** postpartum

-High loss at follow up

-One small trial

PERINEAL WOUND COMPLICATIONS	
2 WEEKS	4/49 (8.2%) (TG)
	14/58 (24.1%) (placebo)
6 WEEKS	4/55(7.3%) (TG)
	14/73 (19.2%) (placebo)

Postoperative management

Lassativi

Diseases of the Colon & Rectum

Randomized, Clinical Trial of Bowel Confinement *vs.* Laxative Use After Primary Repair of a Third-Degree Obstetric Anal Sphincter Tear

Rhona Mahony, M.B., M.R.C.O.G.,[1] Michael Behan, M.B., F.F.R., R.C.S.I.,[2]
Colm O'Herlihy, M.D., F.R.C.O.G.,[1] P. Ronan O'Connell, M.D., F.R.C.S.I.[3]

- **105 women with third degree laceration**
- **2 groups: 3 days of lactulose and 3 days of lactulose followed by 3 days of codeyne**
- **The use of laxative improve bowel movements and is associated with less pain**

Postoperative management

Lassativi

DOI: 10.1111/j.1471-0528.2007.01331.x
www.blackwellpublishing.com/bjog

Randomised clinical trial of a laxative alone versus a laxative and a bulking agent after primary repair of obstetric anal sphincter injury

M Eogan,[a] L Daly,[b] M Behan,[c] PR O'Connell,[a] C O'Herlihy[a]

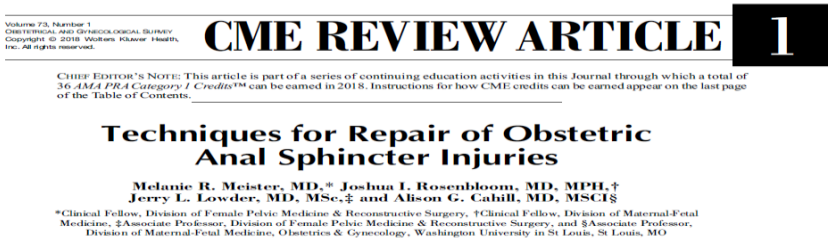
[a] UCD School of Medicine and Medical Science, Dublin, Ireland [b] UCD School of Public Health and Population Science, Dublin, Ireland
[c] Department of Radiology, Mater Misericordiae Hospital, Dublin, Ireland
Correspondence: Prof C O'Herlihy, UCD School of Medicine and Medical Science, Department of Obstetrics and Gynaecology, University College Dublin, National Maternity Hospital, Holles St, Dublin 2, Ireland. Email colm.oherlihy@ucd.ie

Accepted 19 February 2007.

- **147 women with sphincter injury at vaginal birth**
- **2 groups: 77 women receveid LACTULOSE alone thrice daily for 10 days and 70 women received LACTULOSE + ISPAGHULA HUSK(PSILLIO) for 10 days**
- **RESULTS: Pain scores were similar; incontinence in the immediate post natal period was more frequent with lactulose + ispaghula husk compared with lactulose alone(32.86% versus 18.8%)**

Postoperative management

Lassativi



Volume 73, Number 1
OBSTETRICAL AND GYNECOLOGICAL SURVEY

CME REVIEW ARTICLE 1

CHIEF EDITOR'S NOTE: This article is part of a series of continuing education activities in this Journal through which a total of 36 *AMA PRA Category 1 Credits*™ can be earned in 2018. Instructions for how CME credits can be earned appear on the last page of the Table of Contents.

Techniques for Repair of Obstetric Anal Sphincter Injuries

Melanie R. Meister, MD,* Joshua I. Rosenbloom, MD, MPH,†
Jerry L. Lowder, MD, MSc,‡ and Alison G. Cahill, MD, MSCI§

*Clinical Fellow, Division of Female Pelvic Medicine & Reconstructive Surgery, †Clinical Fellow, Division of Maternal-Fetal Medicine, ‡Associate Professor, Division of Female Pelvic Medicine & Reconstructive Surgery, and §Associate Professor, Division of Maternal-Fetal Medicine, Obstetrics & Gynecology, Washington University in St Louis, St Louis, MO

-Polyethylene glicol 17 gr twice daily

-NESSUNA EVIDENZA SCIENTIFICA CHE PREDILIGA UN LASSATIVO RISPETTO AD UN ALTRO

-L'UTILIZZO DI LASSATIVI NELL'IMMEDIATO POST PARTUM E' STRETTAMENTO RACCOMANDATO

- **INFORMARE LA PAZIENTE CHE…**

Women should be advised that 60–80% of women are asymptomatic 12 months following delivery and EAS repair. B

Several randomised controlled studies carried out since 2000 comparing overlap and end-to-end techniques of EAS repair have reported low incidences of anal incontinence symptoms in both arms,[42–45] with 60–80% of women described as asymptomatic at 12 months.[4,42,44,45] Evidence level 1–

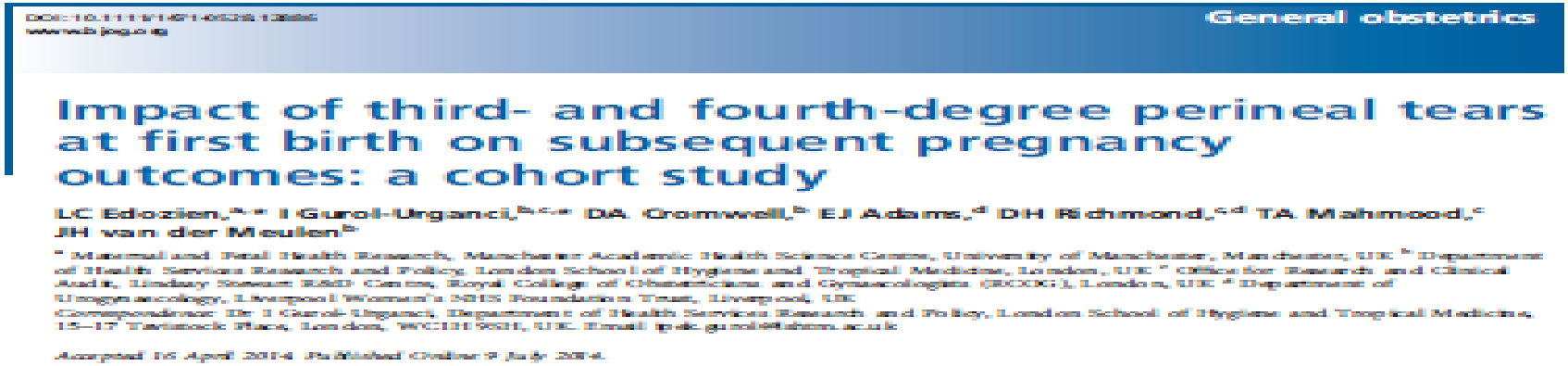
All women who sustained OASIS in a previous pregnancy should be counselled about the mode of delivery and this should be clearly documented in the notes. ✓

The role of prophylactic episiotomy in subsequent pregnancies is not known and therefore an episiotomy should only be performed if clinically indicated. ✓

All women who have sustained OASIS in a previous pregnancy and who are symptomatic or have abnormal endoanal ultrasonography and/or manometry should be counselled regarding the option of elective caesarean birth. ✓

Postoperative management

Parti successivi



General obstetrics

Impact of third- and fourth-degree perineal tears at first birth on subsequent pregnancy outcomes: a cohort study

LC Edozien,[a,*] I Gurol-Urganci,[b,c,*] DA Cromwell,[b] EJ Adams,[d] DH Richmond,[c,d] TA Mahmood,[c] JH van der Meulen[b]

[a] Maternal and Fetal Health Research, Manchester Academic Health Science Centre, University of Manchester, Manchester, UK [b] Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK [c] Office for Research and Clinical Audit, Lindsay Stewart R&D Centre, Royal College of Obstetricians and Gynaecologists (RCOG), London, UK [d] Department of Urogynaecology, Liverpool Women's NHS Foundation Trust, Liverpool, UK

Correspondence: Dr I Gurol-Urganci, Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, 15–17 Tavistock Place, London, WC1H 9SH, UK. Email: ipek.gurol@lshtm.ac.uk

Accepted 16 April 2014. Published Online 9 July 2014.

- April 2004-March 2011

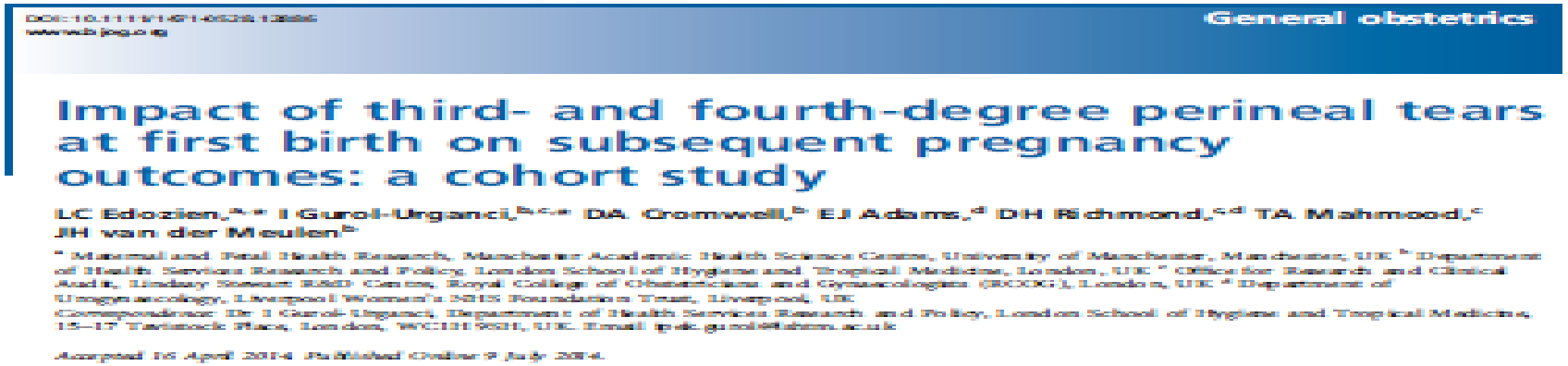
-1.719.539 vaginal first birth → prevalence of third- and fourth degree tears was **3,8%**

-619 717 vaginal delivery second birth → prevalence of third- and fourth degree tears was **1.5%**

- **7.2%** rate of women with third- and fourth degree tears at 2^ birth who had a third- and fourth degree tears in the 1^ birth
- **-1.3%** rate of women with third- and fourth degree tears at 2^ birth who do no had a third- and fourth degree tears in the 1^ birth

Postoperative management

Parti successivi



DOI: 10.1111/1471-0528.12826
www.bjog.org

General obstetrics

Impact of third- and fourth-degree perineal tears at first birth on subsequent pregnancy outcomes: a cohort study

LC Edozien,[a,*] I Gurol-Urganci,[b,c,*] DA Cromwell,[b] EJ Adams,[d] DH Richmond,[c,d] TA Mahmood,[c] JH van der Meulen[b]

[a] Maternal and Fetal Health Research, Manchester Academic Health Science Centre, University of Manchester, Manchester, UK [b] Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK [c] Office for Research and Clinical Audit, Lindsay Stewart RSD Centre, Royal College of Obstetricians and Gynaecologists (RCOG), London, UK [d] Department of Urogynaecology, Liverpool Women's NHS Foundation Trust, Liverpool, UK

Correspondence: Dr I Gurol-Urganci, Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, 15–17 Tavistock Place, London, WC1H 9SH, UK. Email: ipek.gurol@lshtm.ac.uk

Accepted 16 April 2014. Published Online 9 July 2014.

The risk of several perineal tear is **INCREASED FIVE-FOLD** in women who had a third- and fourth degree tear in their first delivery

Postoperative management

Parti successivi

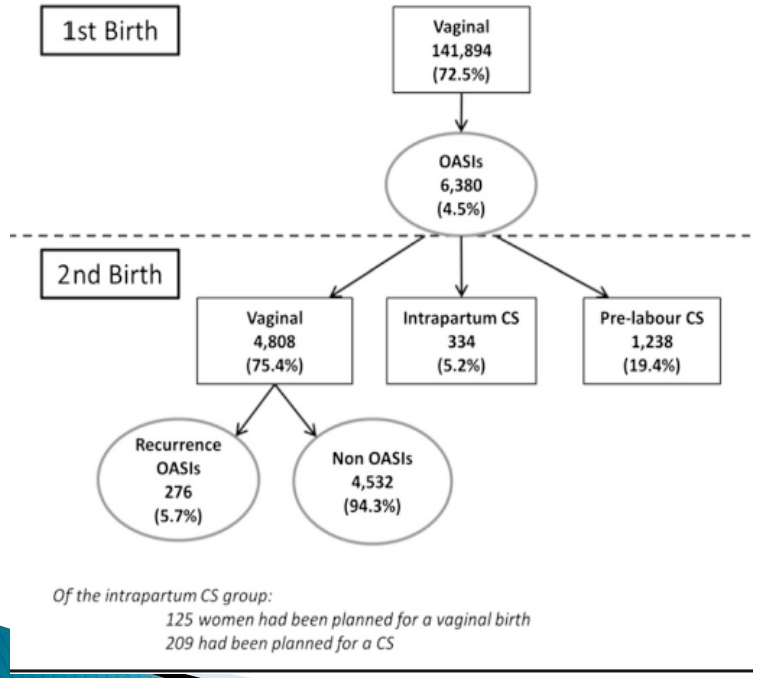
Ampt et al. BMC Pregnancy and Childbirth (2015) 15:31
DOI 10.1186/s12884-015-0469-4

BMC Pregnancy & Childbirth

RESEARCH ARTICLE Open Access

The impact of first birth obstetric anal sphincter injury on the subsequent birth: a population-based linkage study

Amanda J Ampt*, Christine L Roberts, Jonathan M Morris and Jane B Ford



-OASI recurrence rate at second birth was 5,7% → significantly **HIGHER** than the first birth OASI rate (p value < 0.001)

-First birth diabetes and second birth weight > 3500 gr → **INCREASED OASI RECURRENCE**

-First bithweight > 4000 gr and 2^ gestation at 37-38 weeks → **DECREASED OASI RECURRENCE**

Postoperative management

Parti successivi

The counselling of a woman approaching a second birth following a first birth OASI is complex, when the option of a caesarean section may be being discussed.

The impact of first birth obstetric anal sphincter injury on the subsequent birth: a population-based linkage study
Amanda J Ampt* , Christine L Roberts, Jonathan M Morris and Jane B Ford;
Ampt et al. BMC Pregnancy and Childbirth (2015) 15:31 DOI 10.1186/s12884-015-0469-4

Postoperative management

RPP

European Journal of Obstetrics & Gynecology and Reproductive Biology 199 (2016) 201–206

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European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Early pelvic floor muscle training after obstetrical anal sphincter injuries for the reduction of anal incontinence

Mélodie Mathé [a,b], Guy Valancogne [c], Anthony Atallah [a,b], Clémentine Sciard [a,b], Muriel Doret [a,b], Pascal Gaucherand [a,b], Etienne Beaufils [a,b,*]

[a] Département de Gynécologie Obstétrique, Hôpital Femme Mère Enfant, Hospices Civils de Lyon, Lyon, France
[b] Université Claude Bernard Lyon 1, Lyon, France
[c] Centre Tête d'Or, Lyon, France

–Retrospective study

-**AIM OF THE STUDY**: to assess the effectiveness of early pelvic floor muscle training(during first month post partum) combined with standard rehabilitation (after 6-8 weeks post partum)

-211 women →109 standard rehabilitation

→ 102 early rehabilitation + standard rehabilitation

-RESULTS: Early rehabilitation reduced: **GAS LEAKAGE** (OR 0.51,p= 0.02); **LIQUID STOOL LEAKAGE** (OR 0.22; p=0.02); **Urinary stress incontinence** (OR 0.43 ; p= 0.004)

A volte è meglio tacere e
sembrare stupidi che aprire bocca
e togliere ogni dubbio
O.Wilde

GRAZIE

Sacro Monte di Varese