Episiotomy Technique and Management of Anal Sphincter Tears—A Survey of Clinical Practice and Education

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Abstract

Objective: To ascertain current techniques of episiotomy used by obstetrics and gynaecology faculty members and residents in an academic department and to determine the current management strategies for third and fourth degree tears.

Method: A 14-question anonymous online survey was circulated to all faculty members and residents in the University of Toronto Department of Obstetrics and Gynaecology between October 2015 and March 2016. Results were analyzed descriptively or with Fisher exact test.

Results: The survey response rate was 65.5% (169/258) among 108 faculty members and 61 residents. A history of clinical teaching regarding episiotomy was reported by 87% of faculty members and 75.4% of residents. Right mediolateral episiotomy was the most frequently used method among faculty members (88.0%) and residents (95.1%). The majority of respondents indicated that they would use an end-to-end technique for repair in the labour and delivery room under regional anaesthesia. Prophylactic antibiotics were never prescribed by 18.5% of faculty members and 13.1% of residents for third or fourth degree tears. In analysis by type of training, respondents who had taken a workshop or formal class were significantly more likely to prescribe physiotherapy postpartum ($P = 0.001$).

Conclusion: The most common reported method of learning episiotomy was clinical experience. A substantial number of responses differed from current SOGC guidelines for episiotomy technique and repair and management of anal sphincter injury. We propose developing a workshop and/or simulation-based method of instruction for episiotomy technique and repair.

Résumé

Objectif : Déterminer les techniques d'épisiotomie actuellement utilisées par les professeurs et les résidents d'un département universitaire d'obstétrique et gynécologie ainsi que les stratégies actuelles de prise en charge des déchirures complètes et compliquées.

Méthodologie : Un sondage anonyme de 14 questions à remplir en ligne a été envoyé à tous les professeurs et à tous les résidents du département d'obstétrique et gynécologie de l'Université de Toronto entre octobre 2015 et mars 2016. Les résultats ont fait l'objet d'une analyse descriptive ou d'un test exact de Fisher.

Résultats : Nous avons obtenu les réponses de 108 professeurs et de 61 résidents, soit 65,6 % du département (169/258). En tout, 87 % des professeurs et 75,4 % des résidents ont indiqué avoir reçu un enseignement clinique concernant l'épisiotomie. La technique la plus répandue chez les professeurs (88,0 %) et les résidents (95,1 %) était l'épisiotomie médio-latérale droite, et la majorité des répondants ont indiqué qu'ils utiliseraient une technique de réparation bout-à-bout avec une anesthésie régionale dans la salle de travail ou d'accouchement. De plus, 18,5 % des professeurs et 13,1 % des résidents ne prescrivent jamais d'antibioprophylaxie pour une déchirure complète ou compliquée du périnée. L'analyse par types de formation a révélé que les répondants qui avaient suivi un atelier ou un cours officiel étaient significativement plus enclins à prescrire une physiothérapie postpartum ($P = 0,001$).

Conclusion : La méthode d'apprentissage de l'épisiotomie la plus couramment rapportée était l'expérience clinique. Un nombre considérable de réponses s'écartaient des directives actuelles de la SOGC en ce qui concerne la technique d'épisiotomie, la réparation périnéale et la prise en charge d'une lésion du sphincter anal. Nous proposons donc la mise sur pied d'un atelier ou d'une méthode d'apprentissage par simulation portant sur la technique d'épisiotomie et la réparation périnéale.

Key Words: Episiotomy, OASIS, education, workshop, third-degree tear, fourth-degree tear

Competing Interests: None declared.

Received on July 16, 2016

Accepted on September 1, 2016

http://dx.doi.org/10.1016/j.jogc.2016.09.006

J Obstet Gynaecol Can 2016;38(12):1091–1099

INTRODUCTION

Obstetrical anal sphincter injury is a prevalent obstetrical concern in Canada, occurring on average in 1% of all deliveries (range 0.5% to 20%).[1–5] The true incidence of OASIS may be underestimated due to occult or

unrecognized trauma, misclassified type of perineal tear, and insufficient education regarding OASIS.[6–8] Workshop education has been shown to improve the recognition of OASIS by residents and trainees.[9,10] A recent survey of Canadian obstetrician-gynaecologists showed high confidence for recognizing these severe lacerations.[5] However, just over half of the participants in that survey reported high levels of confidence in their ability to repair OASIS.

Risk factors for OASIS involve maternal, fetal, and technical issues. Identifiable maternal risk factors include primiparity, advanced maternal age, obesity, and infibulation.[3,11–15] Evidence-based fetal risk factors for OASIS include macrosomia, malpresentation, postmaturity, and operative delivery.[3,11–13,16,17] Episiotomy itself is an independent risk factor for OASIS.[18] Other important technical and delivery risk factors are the method, angle, and type of episiotomy, operative delivery, epidural analgesia, VBAC, and oxytocin augmentation of labour.[3,11–14,19,20] The impact of OASIS may be profound, with anal incontinence occurring in up to 60% of women.[21,22] Sequelae of OASIS are serious and can be long term; they include anal incontinence, chronic soiling, and fistula formation. This condition is also linked to changes in body image, low self-esteem, and depression.[23,24] Recurrence of OASIS occurs in 4% to 5% of cases.[20,25]

Episiotomy technique and the frequency of performing it have evolved over the past number of years, with several national committees, including the Society of Obstetricians and Gynaecologists of Canada, now recommending restricted use.[22,26] Restricted use of episiotomy has coincided with a reduction in the incidence of OASIS in Canada.[27] It is known that midline episiotomy is associated with a higher incidence of third- and fourth-degree perineal tears.[28–30] The angle of mediolateral episiotomy is important because a higher degree of angulation is associated with reduced rates of OASIS. In a case-control study, Eogan et al. examined the angle of this technique in 100 women who had undergone mediolateral episiotomy.[31] They found that the mean angle for women with OASIS was 30° versus 38° for controls. In fact, for each additional 6° deviation of the episiotomy away from the midline there was a 50% reduction in the relative risk for third-degree tear. Currently the SOGC recommends an angle of 45° to 60° for mediolateral episiotomy.[22] This is consistent with the recommendation in the 2015 Royal College of Obstetricians and Gynaecologists Green-Top Guideline for restricted use of episiotomy at a 60° angle.[26]

Prophylactic intravenous administration of antibiotics is recommended by the SOGC and RCOG for all OASIS cases.[22,26] The SOGC guideline recommends that a single dose of a second generation cephalosporin be administered, and the RCOG guideline recommends administration of broad spectrum antibiotics.

In this study we sought to determine the current practices of faculty members and residents in our department for episiotomy technique and OASIS management. We hypothesized that an increased level of training would correlate with greater acquisition of evidence-based techniques and management. We also hypothesized that the type of education (clinical versus workshop) would influence episiotomy technique and management.

ABBREVIATIONS

OASIS	obstetrical anal sphincter injury
RCOG	Royal College of Obstetricians and Gynaecologists
RML	right-mediolateral

METHODS

We emailed an online survey to all faculty members and residents in the University of Toronto Department of Obstetrics and Gynaecology. A total of 190 faculty members and 68 residents were eligible for participation and received the email. The initial email containing survey information and an online link was sent in October 2015. Two additional emails were sent to all eligible participants in November 2015 and February 2016 to invite further responses. The survey was open for participation online between October 2015 and February 2016. No incentives or disincentives were offered for participation in this study.

The survey was created using FluidSurveys and consisted of 14 multiple-choice style questions. The survey was anonymous, and no identifying information was collected. Questions pertained to episiotomy technique, management, and level and type of training (eAppendix). Results were analyzed using descriptive statistics and Fisher exact test.

Ethics approval was obtained from the Health Sciences Research Board at the University of Toronto prior to sending the surveys to participants.

RESULTS

The overall survey response rate was 65.5% (169/258); for residents the response rate was 89.7% (61/68), and for faculty members it was 56.8% (108/190) (Table 1). Responses stratified by level of training (resident or faculty member) are shown in Table 2 and by type of training in