Obstetric Anal Sphincter Injuries: A Survey of Clinical Practice Among Canadian Obstetricians

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Abstract

Objective: To describe the current practice, experience, and confidence of Canadian obstetricians in the management of obstetric anal sphincter injuries (OASIS) and to explore the need for national practice guidelines on this topic.

Methods: We conducted a cross-sectional, Internet-based survey between December 2010 and March 2011. The survey was initially tested among a sample population and then distributed electronically to 665 Canadian obstetricians. Data were analyzed descriptively. The main outcome measures were the self-reported confidence and experience of Canadian obstetricians in OASIS management and the frequency of performing specific OASIS management steps.

Results: The survey response rate was 28.7%. The majority of the respondents (95%) reported confidence in performing OASIS repairs. In the event of a perineal laceration, 47.9% of respondents routinely performed a rectal examination. Most OASIS repairs were performed in the delivery room (89.4%) under local anaesthesia (60.6%) when regional anaesthesia was not already present. If lacerated, the internal anal sphincter was repaired separately by 63.4% of respondents, and intraoperative antibiotics were ordered by 51.1% of respondents. Most (92%) reported the absence of a local protocol to guide OASIS repair.

Conclusion: The confidence of Canadian obstetricians who participated in this survey in performing OASIS repairs was high. However, their experience in performing repairs and their use of management steps varied. The need for national guidelines and an increase in awareness is suggested.

Résumé

Objectif : Décrire les pratiques actuelles, l'expérience et le degré de confiance des obstétriciens canadiens en ce qui a trait à la prise en charge des lésions obstétricales affectant le sphincter anal (OASIS), ainsi qu'explorer la nécessité d'élaborer des lignes directrices nationales à ce sujet.

Méthodes : Nous avons mené un sondage transversal par Internet entre décembre 2010 et mars 2011. Le sondage a d'abord été mis à l'essai auprès d'un échantillon populationnel, pour ensuite être distribué par voie électronique à 665 obstétriciens canadiens. Les données ont été analysées de façon descriptive. Les principaux critères d'évaluation ont été la confiance et l'expérience autosignalées par les obstétriciens canadiens en matière de prise en charge des OASIS, ainsi que la fréquence avec laquelle ils procédaient à des étapes particulières de la prise en charge des OASIS.

Résultats : Le taux de réponse au sondage a été de 28,7 %. La majorité des répondants (95 %) ont signalé être confiants au moment de mener des interventions visant à réparer des OASIS. En présence d'une lacération périnéale, 47,9 % des répondants procédaient systématiquement à la tenue d'un examen rectal. La plupart des réparations d'OASIS étaient menées dans la salle d'accouchement (89,4 %) sous anesthésie locale (60,6 %), lorsqu'une anesthésie régionale n'avait pas déjà été mise en œuvre. Lorsqu'il était lacéré, le sphincter anal interne a été réparé séparément par 63,4 % des répondants et l'administration peropératoire d'antibiotiques a été mise en œuvre par 51,1 % des répondants. La plupart des répondants (92 %) ont signalé l'absence d'un protocole local orientant la réparation des OASIS.

Conclusion : La confiance des obstétriciens canadiens qui ont participé à ce sondage était élevée, en ce qui a trait à la tenue de réparations d'OASIS. Toutefois, leur expérience en matière d'exécution de ces réparations et leur utilisation des étapes de la prise en charge variaient. Nous suggérons la rédaction de lignes directrices nationales sur la prise en charge des OASIS et l'intensification des efforts de sensibilisation à cette problématique.

Key Words: Third-/fourth-degree tear, obstetric anal sphincter injury, practice survey

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INTRODUCTION

Traumatic injury to the anal sphincter sustained in a third- or fourth-degree laceration during vaginal delivery is the most common cause of anal incontinence in women of reproductive age. The main risk factors for obstetric anal sphincter injuries are primiparity, fetal macrosomia, midline episiotomy, prolonged second stage of labour, and forceps assisted delivery.[1–3] OASIS are recognized to occur in approximately 1% of vaginal deliveries,[4] with a reported incidence of 0.5% to 20%.[5–7]

Following conventional primary repair, the rate of persistent anal symptoms including incontinence has been reported to be as high as 59%,[7–12] with incontinence of flatus and fecal urgency being most common. The spectrum of distressing OASIS sequelae can also include incontinence of liquid or solid stool, passive soiling, perineal pain, dyspareunia, or leakage due to rectovaginal fistulae. Even though anal incontinence can severely compromise quality of life, social stigma and embarrassment may prevent many women from reporting symptoms to their physicians. Therefore, the true prevalence of anal symptoms following OASIS is unknown and is likely underestimated.

Litigation related to OASIS and related consequences has increased worldwide over the last 10 years.[13] Missed diagnosis, lack of expertise, insufficient training, and inadequate surgical technique have all been suggested as possible reasons for the high rate of persistent symptoms after primary repair.[14] In an attempt to reduce morbidity and litigation, the Royal College of Obstetricians and Gynaecologists in the United Kingdom published clinical practice guidelines on the repair of third- and fourth-degree lacerations in 2007.[4] Based on the available evidence at the time, the guidelines described the specific location, type of anaesthesia, method of repairing the sphincter, type of suture to be used, and perioperative medications that should be prescribed to provide optimal clinical results. The authors of the guidelines suggested that local protocols should be developed and implemented, both to aid in the complete documentation of the repair methods and to provide consistent care to women with sphincter injury.

It has been suggested that primary sphincter repair immediately after delivery is more likely to be successful in the long term than a secondary repair performed remote from delivery.[15,16] Not only do obstetricians perform the majority of deliveries in Canada, but they are also the surgeons consulted when a significant laceration has occurred under the care of a midwife or family physician. The current practice among obstetricians in Canada in the repair of OASIS is unknown. It is suspected that without national guidelines or an established standard of care, the methods used across the country vary widely. Therefore, the specific aims of this study were threefold:

1. to describe the current practice, experience, and confidence of Canadian obstetricians in the management of OASIS;
2. to determine whether local protocols on the repair of OASIS exist within Canada; and
3. to explore whether Canadian obstetricians would benefit from national practice guidelines on this topic.

It is the intention of the authors to investigate Canadian practice, and also to stimulate discussion and heighten awareness of this important and under-recognized women's health issue.

ABBREVIATIONS

EAS	external anal sphincter
IAS	internal anal sphincter
OASIS	obstetric anal sphincter injuries
RCOG	Royal College of Obstetricians and Gynaecologists

METHODS

A cross-sectional survey designed to investigate OASIS management was distributed electronically to Canadian obstetrician–gynaecologists in December 2010. The main outcomes were the self-reported confidence and experience of respondents who practised obstetrics in performing OASIS repairs and their frequency of performing specific management steps.

Following an extensive review of the literature, a 25-item questionnaire was developed to encompass the important aspects of OASIS repair in evidence reported in current research and in the guidelines published by the RCOG in the United Kingdom.[4] The content validity of the questionnaire was reviewed by two experts on OASIS repair from the Division of Urogynaecology at Mount Sinai Hospital, Toronto, to confirm that the questions covered all relevant aspects of the topic. The questions were organized into four sections:

1. demographic data,
2. experience and training in OASIS repair,
3. management of OASIS repair, and
4. postoperative and postpartum care.

The survey content and flow was then assessed by five practising obstetrician–gynaecologists, and modifications were made according to their suggestions. The electronic format of the questionnaire was created with the use of FluidSurveys, an Internet-based survey vehicle. The online software allowed instant analysis and filtering of data as soon as the surveys were completed, and all data were stored within Canada. Reliability testing was then performed by administering the online version of the questionnaire to 40 staff physicians in the Department of Obstetrics and Gynaecology at Mount Sinai Hospital on two occasions,