A Comparison of Urinary and Sexual Outcomes in Women Experiencing Vaginal and Caesarean Births

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Abstract

Objective: To evaluate the urinary and sexual consequences of vaginal delivery compared with Caesarean section.

Methods: We performed a cohort analysis of data from a randomized controlled trial of episiotomy conducted in 3 Montreal hospitals in 1990–1991. Of the 999 trial participants for whom follow-up data were available, 135 delivered by Caesarean section (CS), and 864 had a vaginal birth (VB). After stratifying for parity, we compared rates of urinary incontinence (UI) and sexual functioning at 3 months postpartum in women who had a VB with the rates in women who had a CS.

Results: Primiparous women reported unspecified UI at 3 months postpartum more often (17.9%) in the VB group than in the CS group (6.4%). This difference remained significant whether or not there was a prior history of UI. Multiparous women showed no difference in rates of UI (VB 17.1% vs. CS 16.0%), whether there was a prior history of UI or not. Stress incontinence was greater among primiparous women in the VB group (VB 34.5% vs. CS 12.8%) regardless of prior UI history, but the proportion of women whose UI was severe enough to wear a pad was similar in primiparous women (VB 16.0%, CS 15.4%) and multiparous women (VB 23.8%, CS 25.0%). Women's sexual dissatisfaction was greater among primiparous women who had a vaginal birth (VB 70.1%, CS 54.5%), but in multiparous women, the rates of sexual dissatisfaction were similar (VB 64.2%, CS 71.4%). The frequency of dyspareunia for each mode of delivery was similar in primiparous women (VB 30.7%, CS 31.6%). Overall, both primiparous and multiparous women who had intact perineums after VB had less dyspareunia than those undergoing CS (VB 26.2, CS 40.7%). However, the proportion of women experiencing dyspareunia was greatest among those who had an episiotomy with or without forceps.

Conclusion: At 3 months postpartum, delivery by CS appeared to afford some protection against unspecified and stress UI, but severe UI was similar in the VB and CS groups. Overall sexual functioning following VB and CS was similar, but women who had an episiotomy with or without forceps experienced less favourable sexual outcomes at 3 months postpartum than did the women who had an intact perineum or a second-degree tear, or who had had a Caesarean section.

Key Words: Caesarean section, choice, pelvic floor, urinary incontinence, sexual functioning, delivery, physician behaviour

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Résumé

Objectif : Évaluer les conséquences urinaires et sexuelles de l'accouchement vaginal, par comparaison avec celles de la césarienne.

Méthodes : Nous avons mené une analyse de cohorte portant sur les données issues d'un essai comparatif randomisé s'intéressant à l'épisiotomie, lequel avait été mené au sein de trois hôpitaux montréalais en 1990–1991. Des 999 participantes à l'essai pour lesquelles des données de suivi étaient disponibles, 135 ont accouché par césarienne (CS) et 864 ont connu un accouchement vaginal (AV). Après avoir stratifié l'échantillon en fonction de la parité, nous avons comparé les taux d'incontinence urinaire (IU) et de fonctionnement sexuel à trois mois post-partum des femmes ayant connu un AV à ceux des femmes ayant subi une CS.

Résultats : Les femmes primipares ont signalé une IU non précisée à trois mois post-partum plus souvent (17,9 %) dans le groupe AV que dans le groupe CS (6,4 %). La présence ou non d'antécédents d'IU n'a aucunement affecté le caractère significatif de cette différence. Les femmes multipares n'ont présenté aucune différence en ce qui a trait aux taux d'IU (17,1 % pour le groupe AV, par comparaison avec 16,0 % pour le groupe CS), antécédents d'IU ou non. Le taux d'incontinence à l'effort était supérieur chez les femmes primipares du groupe AV (34,5 % pour le groupe AV, par comparaison avec 12,8 % pour le groupe CS), et ce, peu importe les antécédents d'IU; toutefois, la proportion de femmes chez lesquelles l'IU était si prononcée que le port d'une serviette sanitaire s'avérait nécessaire était semblable tant chez les femmes primipares (16,0 % pour le groupe AV, par comparaison avec 15,4 % pour le groupe CS) que chez les femmes multipares (23,8 % pour le groupe AV, par comparaison avec 25,0 % pour le groupe CS). Bien que l'insatisfaction sexuelle ait été supérieure chez les femmes primipares qui avaient connu un accouchement vaginal (70,1 % pour le groupe AV, 54,5 % pour le groupe CS), les taux d'insatisfaction sexuelle ont été semblables

dans le cas des femmes multipares (64,2 % pour le groupe AV, 71,4 % pour le groupe CS). La fréquence de la dyspareunie à la suite de chacun de ces modes d'accouchement s'est avérée semblable chez les femmes primipares (30,7 % pour le groupe AV, 31,6 % pour le groupe CS). Globalement, les femmes (tant primipares que multipares) dont le périnée est resté intact à la suite de l'AV présentaient moins de cas de dyspareunie que les femmes ayant subi une CS (26,2 % pour le groupe AV, 40,7 % pour le groupe CS). Toutefois, les femmes qui avaient subi une épisiotomie (avec ou sans forceps) sont celles qui ont présenté la plus importante proportion de cas de dyspareunie.

Conclusion : À trois mois post-partum, l'accouchement par CS semblait avoir offert une certaine protection contre l'IU non précisée et l'IU à l'effort; toutefois, la prévalence de l'IU grave était semblable au sein des groupes AV et CS. Bien que le fonctionnement sexuel global à la suite d'un AV ou d'une CS ait été semblable, les femmes ayant subi une épisiotomie (avec ou sans forceps) ont connu des issues sexuelles à trois mois post-partum moins favorables que les femmes dont le périnée est demeuré intact, qui avaient subi une déchirure du deuxième degré ou qui avaient subi une césarienne.

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INTRODUCTION

Increasing numbers of women are requesting Caesarean sections (CS) in the absence of clear indications for themselves or for the fetus. It is unclear whether this phenomenon is driven by women or by professionals who are either promoting such choices or who are becoming more comfortable with the request.[1–3] The debate on Caesarean section on demand is highly politicized. Proponents claim the evidence is clear that CS protects a woman from the negative consequences of vaginal birth to the pelvic floor and that it is protective for both mother and fetus in avoiding trauma and injury to both.[4–8] Opponents question the evidence upon which these assertions are made, claiming that they serve to undermine the confidence of women in their ability to give birth vaginally and give little weight to the empowering aspects of vaginal birth (VB).[9–10] The International Federation of Gynecology and Obstetrics (FIGO) supports vaginal birth and finds that allowing CS on request is not ethically justified.[11] The American College of Obstetricians and Gynecologists has determined that it is ethically permissible to accede to a request for an elective CS from an informed woman, even in the absence of clear indications for herself or for the fetus, but it is also acceptable to refuse if the surgeon feels that performing CS is not in the woman's interest.[12] The Society of Obstetricians and Gynaecologists of Canada (SOGC) stated in a press release in March 2004 that vaginal birth remains the "preferred" approach and "the safest option for most women and carries with it less risk of complications in pregnancy and subsequent pregnancies than Caesarean birth."[13] In a subsequent press release, they stated " . . . the Society is concerned that a natural process would be transformed into a surgical process . . . The SOGC will continue to promote natural childbirth and make strong representation to have adequate resources available for women in labour and during childbirth in Canada."[14]

The literature comparing the bladder, rectal, and sexual consequences of VB with those of CS is limited but increasing. Urinary incontinence (UI) is a serious problem, but the available research is generally limited to a short follow-up period of 3 or 6 months and rarely exceeds 12 months postpartum.[15–20] Minimal benefits of CS or VB at 3 to 6 months postpartum are shown in these studies, except that use of forceps is associated with less desirable outcomes related to sexual function and urinary and fecal continence. Long-term population-based studies show either no differences in outcome by mode of birth[21,22] or small benefits for CS, compared with VB. Approximately 10% of women who have never delivered a child have UI,[24] and the incidence is higher in nuns.[24] Urinary incontinence in older women is strongly associated with several nonmaternity factors. There are few studies of sexual dysfunction as a consequence of mode of birth.[21,25,26] None of these studies control for breast-feeding, and comparing rates of sexual dysfunction following VB with those following CS is unreasonable at only 3 to 6 months postpartum. Nevertheless, by 6 months after delivery, differences in rates of sexual dysfunction between VB and CS usually disappear.

The mainstream obstetric literature strongly emphasizes biophysiological outcomes while neglecting the meaning and importance of maternal symptoms and the social and psychological benefits of VB. Although in our study we focus on pelvic floor issues, other issues, including overall maternal health, the classical surgical morbidities, the consequences for the newborn of the mode of birth, and the late effects of CS for future pregnancies need to be considered in deciding on route of delivery.[27,28] A comprehensive review of these morbidities is beyond the scope of this paper, but according to recent reviews, vaginal birth on balance appears to be associated with fewer problems in the first and future pregnancies.[28–30] Finally, any review of short-term consequences of VB and CS must acknowledge that practices during a vaginal delivery that contribute to adverse perineal or pelvic floor outcomes need to be challenged and changed. For example, the new *SOGC Guidelines for Operative Birth* stated that episiotomy need not be routinely performed with use of forceps or vacuum for delivery.[31]

In the context of the evolving debate on Caesarean section on demand, we reviewed data from the Montreal Episiotomy Trial[32–35] that we felt might improve understanding of the outcomes of interest in a well-described population of low-risk women. We designed a new set of study objectives based on the women's self-reporting of pelvic floor symptomatology.