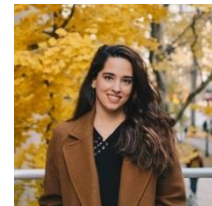


## Risks of planned vaginal birth vs. planned cesarean section after previous cesarean

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### Abstract

**Statement of the problem:** While there is emerging evidence discussing the risks of planned vaginal birth and cesarean section, little is known about how these risks compare in women who have had previous cesarean operations. This study thus examines the risks of planned vaginal birth vs. planned cesarean section after previous cesarean. **Methodology:** A systematic review of the literature was conducted using Medline, Embase, Cochrane, and Central databases. A total of 220 articles were included in this review. Articles were further selected based on recency of publication as well as depth of detail regarding the measured outcomes such as uterine rupture, maternal transfusion and hysterectomy. Participants included healthy women with previous cesarian section. The intervention was planned vaginal birth after a) spontaneous or b) induced labour. The primary outcome was uterine rupture, and the secondary outcomes included maternal transfusion, hysterectomy, maternal infection, maternal mortality, perinatal death or 5min Apgar <7, as well as admission to NICU. **Findings:** The results indicate that the relative risk of uterine rupture for women planning vaginal vs. cesarian birth after a previous cesarean is 2-3 times higher, but the absolute difference is 2-4/1000. Furthermore, oxytocin induction compared to spontaneous labour among women planning a vaginal birth is associated with a 1.5-3-fold increase in the risk of uterine rupture, with a range in absolute increase from 2-9/1000. Maternal mortality was 0.2-0.4/1,000 less frequent in the planned vaginal group. Maternal transfusion occurred less frequently (absolute difference approximately 1-3/1,000 among women planning vaginal birth but this finding was inconsistent across studies. Hysterectomy (absolute difference 1-2/1,000) and infection (2-4/1,000) were consistently less frequent in the planned vaginal birth group.

There is decreased maternal and newborn morbidity associated with planned vaginal birth. Overall this review suggests that healthy women at term with a singleton fetus should be encouraged to plan vaginal birth after a discussion of risk vs. benefit. Induction of labour should also be offered after a discussion of risk vs. benefit.

### Biography:

Sheida Naderi-Azad has completed her Bachelor of Science in Microbial and Environmental Pathophysiology from University of British Columbia and is currently an MD Candidate at the University Of Toronto Faculty Of Medicine. She has an expertise in immunology and oncology, with a deep interest in changing metabolic demands with aging. She has most recently completed a summer studentship at the Dana Farber / Harvard Cancer Centre. She has had numerous published articles and presentations on cancer therapeutics, inflammatory conditions and women's health.

### Speaker Publications:

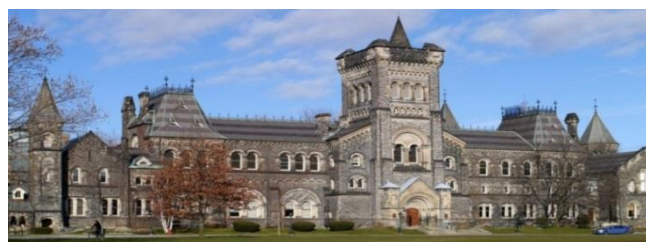
1. "Psoriasis: Treating the skin and the mind"
2. "Lessons from the First Wave of the Pandemic: Skin Features of COVID-19 can be Divided Into Inflammatory and Vascular Patterns"
3. "Cutaneous immune-related adverse events in patients with metastatic melanoma on antiprogrammed cell death protein 1 and anticytotoxic T-lymphocyte-associated protein 4 therapy: A retrospective cohort study"
4. "256 Differences in immune-related adverse events between vulvovaginal vs. cutaneous melanoma: a retrospective cohort study"
5. "A Wound Care Specialist's Approach to Pyoderma Gangrenosum"

[3<sup>rd</sup> World Congress on Polycystic Ovarian Syndrome and Fertility](#), Webinar, November 26-27, 2020

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Differences in perinatal mortality varied from 0-3/1,000 between studies in either direction. Newborns of mothers who planned vaginal birth experienced a reduction in incidence of five minute Apgar scores less than seven and admissions to NICU ranged from 2-46/1,000. Conclusion and significance: