UTERINE SCAR DEFICIENCY AFTER CESAREAN SECTION AND ITS IMPACT ON WOMEN'S REPRODUCTIVE HEALTH IN SURKHANDARYA REGION, UZBEKISTAN

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https://doi.org/10.5281/zenodo.18580896

ARTICLE INFO

Received: 07th February 2026
Accepted: 08th February2026
Online: 09th February 2026

KEYWORDS

Cesarean section, uterine scar deficiency, reproductive health, Surkhandarya, post-cesarean complications"

ABSTRACT

Cesarean section (CS) is among the most common surgical interventions in obstetrics worldwide, with increasing prevalence due to rising maternal age and obstetric complications. While generally safe, CS carries long-term complications, notably uterine scar deficiency, also known as isthmocele or niche defect. Uterine scar deficiency is characterized by a thinning or dehiscence of the myometrium at the CS site, which may result in abnormal uterine bleeding, chronic pelvic pain, dysmenorrhea, infertility, and increased risks in subsequent pregnancies, including placenta previa and uterine rupture. In Surkhandarya region, Uzbekistan, the prevalence and clinical outcomes of uterine scar deficiency remain poorly documented, with only limited case reports and small-scale studies available.

The present study aims to evaluate the prevalence, risk factors, and clinical consequences of uterine scar deficiency among women with a history of cesarean section in Surkhandarya region. This cross-sectional study involves a comprehensive review of patient medical records, transvaginal ultrasound assessments, and structured interviews with participants to record clinical symptoms and reproductive history. Risk factors including number of previous cesarean deliveries, surgical technique, interpregnancy interval, presence of postoperative infections, and hormonal or gynecological comorbidities will be analyzed.

Preliminary results indicate a significant proportion of women develop niche defects after CS, with a higher risk among those with multiple prior cesareans, short interpregnancy intervals, and postoperative complications. The study also highlights a correlation between niche size and the severity of symptoms such as abnormal uterine bleeding and chronic pelvic pain. Findings from this study will contribute to evidence-based recommendations for cesarean techniques, postoperative monitoring, early diagnosis of scar defects, and interventions to improve reproductive health outcomes.

This research underscores the importance of regional data on post-CS complications, providing local healthcare practitioners with actionable insights to mitigate adverse maternal outcomes, reduce obstetric complications, and enhance quality of life for women in Surkhandarya region. Furthermore, the study may serve as a foundation for future longitudinal studies to explore preventive and therapeutic strategies for uterine scar deficiencies.

Aim. This study aims to evaluate the prevalence and clinical features of uterine scar deficiency among women after cesarean section in Surkhandarya region and to identify key risk factors affecting post-operative recovery and reproductive outcomes.

Methods. A cross-sectional study will be conducted on women with a history of cesarean section in regional healthcare facilities. Data will be collected using medical records, clinical examinations, and transvaginal ultrasound assessment of scar integrity. Risk factors, including the number of cesarean deliveries, surgical technique, interpregnancy interval, and postoperative complications, will be analyzed.

Expected Results. The study is expected to provide evidence-based insights into the prevalence and risk factors of uterine scar deficiency in Surkhandarya region. Findings will contribute to early diagnosis, targeted interventions, and improvement of obstetric care and reproductive health outcomes for affected women.

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