

Successful DaVinci Repair of Isthmocele for Metrorrhagia after Cesarean Delivery: A Case Report

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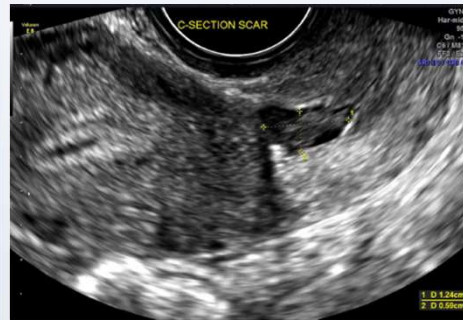
INTRODUCTION

The CDC reports that in 2019, nearly 32% of all pregnancies in the United States resulted in a cesarean section. The obstetric patient continues to be more complex with rising rates of obesity, diabetes, and maternal age. As a result, management of such patients in the postpartum period becomes a greater challenge. Current literature defines an isthmocele as an anatomic defect from a previous cesarean section scar, where the myometrial thickness is reduced by 50% or greater. A significant amount of research has been devoted to what this means for our patients today. Case reports show uterine rupture, placenta accreta spectrum disorders, abnormal uterine bleeding (AUB), pelvic pain, cesarean scar pregnancy and secondary infertility related to patients with isthmoceles. Although surgery is the problem for these patients, attention must be turned to see if surgery can also be the solution.

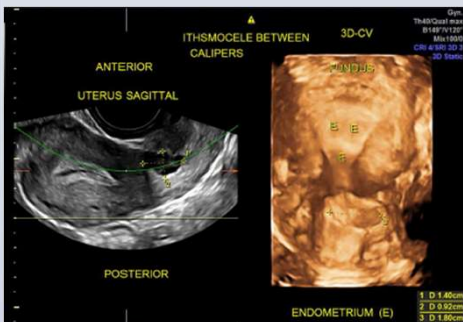
METHODS

A case is described of a 39-year-old G1P1 presenting 2 months after her cesarean delivery with longer and irregular menstrual periods. Subsequent two and three-dimensional transvaginal sonography (2D and 3D-TVS) showed a 1.2 cm x 0.6 cm x 1.8 cm isthmocele with collections of free fluid.

MATERIALS & METHODS



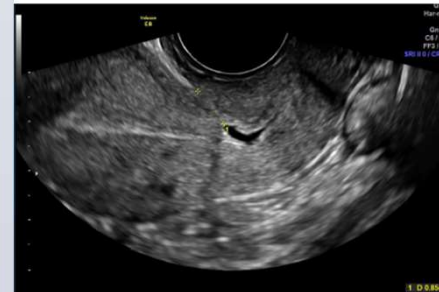
Pre-Op TVS of sagittal and transverse view of the uterine lower uterine segment (LUS) demonstrating a 1.24 x 0.59 x 1.77 cm cesarean scar defect (isthmocele) between calipers.



Pre-Op 3D TVS is a combination of sagittal view of the isthmocele (plane A) and of rendering view of the coronal view of the isthmocele (plane 3 D). Borders of the Isthmocele are identified with calipers.

RESULTS

The patient was counseled for a repair of isthmocele given a systematic review of surgically repairing isthmoceles for improving pelvic pain and uterine bleeding. The patient underwent an uncomplicated DaVinci repair of isthmocele and diagnostic hysteroscopy. The patient was followed with 3D TVS and noted to have a successful repair of the isthmocele and complete resolution of abnormal uterine bleeding and pelvic pain. She has since gotten pregnant approximately 16 months after her surgery and is currently in the third trimester.



Post Op image above - 3D rendering mode of C-V of uterus demonstrating a complete resolution of the isthmocele with normal endometrial cavity and endocervical canal.

Post Op image below - TVS of the sagittal view of the uterus and cervix demonstrating a resolution of the isthmocele with 0.85 cm a normal thickness of the LUS between calipers

CONCLUSIONS

Isthmocele, as demonstrated in our patient, can be a cause of abnormal uterine bleeding, pelvic pain, and possibly infertility. Other systematic reviews show its relation to increased rates of placenta accreta spectrum disorders as well as uterine rupture. Going forward, more case reports and systematic reviews will be needed to mature our knowledge of isthmoceles so that we can optimize surgical technique to prevent it as well as treat it. Understanding its presentation as well as 2D and 3D TVS ultrasound with or without saline infusion Sono-hysterography (SIS) diagnosis will also help us manage this surgical complication so that we can counsel patients better on outcomes and expectations.

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