

Persistent fibroid previa: A strong predictor of cesarean delivery

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Introduction

Certain uterine fibroid characteristics are associated with adverse pregnancy outcomes, including pregnancy loss, preterm labor, cesarean delivery, and postpartum hemorrhage. Data on lower uterine segment (LUS) fibroids are limited. Fibroids in the LUS or cervix, or those causing fibroid previa, may obstruct labor or impair uterine contractility, leading to increased cesarean delivery rates.

Primary Objective: To evaluate the impact of fibroid previa, defined as fibroids in the LUS or cervix obstructing or encroaching upon the internal cervical os, on mode of delivery.

Secondary Objective: To assess obstetric complications and identify fibroid characteristics predictive of cesarean delivery.

Methods

This retrospective cohort study compared pregnancy outcomes in women with LUS fibroids and age-matched controls. Cases were identified from an ultrasound database of singleton pregnancies with second-trimester anatomy ultrasounds between Jan 2015-Aug 2023. Inclusion criteria required LUS fibroids (≥5 cm diameter). Persistent fibroid previa was defined as persisting into the third trimester or at delivery. Exclusions included multifetal gestations, missing second trimester ultrasound, and incomplete delivery records. Odds ratios were adjusted for maternal age, race, body mass index, parity and history of cesarean delivery.

Results

Table 1. Obstetrical outcomes

Variable	Controls (n=355)	LUS fibroids (n=71)	P-value
Gestational age at delivery (weeks)	38.7 ± 2.3	38.3 ± 2.8	0.30
Preterm birth <37 weeks	37 (10.4)	8 (11.3)	0.83
Delivery mode			
Cesarean delivery	139 (39.2)	43 (60.6)	0.001
Malpresentation	25 (7.0)	15 (21.1)	<0.001
Estimated blood loss (mL)	563 ± 514	744 ± 626	0.003
Postpartum hemorrhage (≥1000 mL)	43 (12.1)	17 (23.9)	0.009

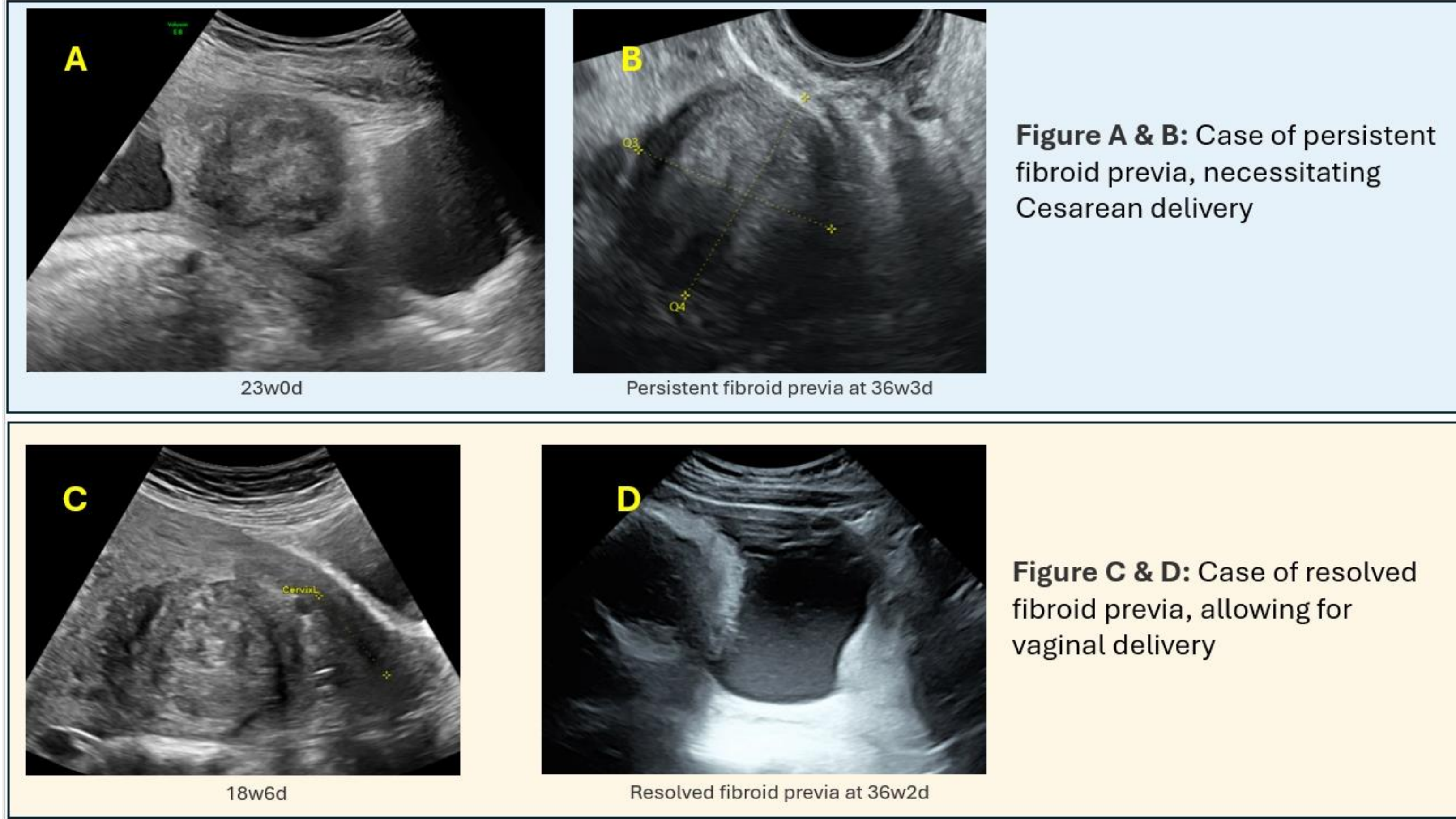
Persistent fibroid previa emerged as the strongest predictor of cesarean delivery:

- Persistent fibroid previa was observed in 24 women (33.8%), all of whom underwent cesarean delivery.

Table 2. Multivariable logistic regression predicting cesarean delivery

Fibroid characteristics	OR (95% CI)	Adjusted OR (95% CI)
Large fibroids (>10 cm)	24.8 (3.2-189.5)	19.4 (2.4-156.9)
Multiple fibroids	3.2 (1.6-6.3)	2.3 (1.1-5.2)
Intramural or combined-type fibroids	2.5 (1.4-4.4)	2.1 (1.1-4.2)

OR, odds ratio.



Conclusion

Fibroid previa substantially increases the risk of cesarean delivery, with persistent fibroid previa being the strongest predictor.

Predictors include:

- Persistent fibroid previa,
- Large fibroids (>10 cm)
- Multiple fibroids
- Intramural or combined fibroid type

Implication: Recognition of these fibroid characteristics can guide clinical decision-making and counseling regarding delivery mode.