

Beyond 7 cm: large fibroids increase miscarriage risk

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Objective

To evaluate whether large uterine fibroids (≥7 cm) identified in the first trimester are associated with an increased risk of miscarriage. Secondary outcomes included malpresentation, postpartum hemorrhage, and cesarean delivery.

Methods

- Retrospective cohort study comparing pregnancy outcomes between patients with large uterine fibroids (n=95) and age-matched controls without fibroids (n=307), identified by ultrasound before 14 weeks gestation.
- Exclusion criteria: multiple gestations, ectopic pregnancies, elective abortions, and unavailable outcomes.
- Logistic regression analyses were adjusted for maternal age and race/ethnicity.

Table: Demographics and outcomes

Variables	No Fibroid	Fibroids ≥7 cm	P-value
Age (year), mean ± SD	32.7±4.6	33.6±4.8	0.099
Miscarriage, n (%)	53 (17.3%)	28 (29.5%)	<0.001**
Malpresentation, n (%)*	19 (7.5%)	17 (25.4%)	<0.001
Postpartum hemorrhage, n (%)*	38 (15.3%)	19 (29.7%)	0.008
Cesarean delivery, n (%)*	109 (42.9%)	40 (59.7%)	0.014

*out of live births **logistic regression

Results

- No significant differences found between study and control group baseline characteristics (maternal age, gestational age at initial ultrasound, or prior miscarriage history)
- **Higher miscarriage rates seen in presence of large fibroids**
- **Uterine body or fundal fibroids associated with higher odds of miscarriage** compared to those in the lower uterine segment
- **Significantly higher rates of malpresentation, postpartum hemorrhage, and cesarean delivery in the fibroid group**



Ultrasound at 9w5d showing a large left fundal uterine fibroid (7.7 x 8.1 x 6.5 cm)

Conclusion

Large uterine fibroids diagnosed during early pregnancy significantly increase miscarriage risk, underscoring the need for preconception counseling and miscarriage precautions in affected pregnancies.