

# Severe adenomyosis is related to adverse perinatal outcomes: a retrospective study in China

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## Abstract

**Objective:** To evaluate the relationship between adenomyosis severity and perinatal outcomes. **Design:** Pregnant women with adenomyosis were divided into two groups: the mild group (adenomyosis volume <500 cm<sup>3</sup>) and the severe group (adenomyosis volume ≥500 cm<sup>3</sup>). **Setting:** Tertiary care institution, Shanghai, China. **Population:** In total, 286 pregnancies complicated with adenomyosis, who attended routine prenatal check-ups between July 1, 2017, and June 30, 2019, at Shanghai First Maternity and Infant Hospital participated in the study. **Methods:** A total of 286 pregnant women with adenomyosis were analysed retrospectively. The three diameter lines (length, L; width, W; and thickness, T) of adenomyosis were measured by ultrasound during pregnancy. The volume of adenomyosis (V) was calculated by the formula  $V = L * W * T * 4 / 3 \pi$ . Pregnant women with adenomyosis were divided into a mild group (V<500 cm<sup>3</sup>) and a severe group (V≥500 cm<sup>3</sup>). **Main outcome measures:** The relationship between adenomyosis severity and perinatal outcomes. **Results:** Pregnant women in the severe group had higher preterm labour rate (18.5% versus 10.2%; odd ratio 1.991; 95% CI 0.969-4.090), higher caesarean section rate (67.9% vs 49.8%; odd ratio 2.136; 95% CI 1.114-2.672), and earlier gestational week at delivery (38+0 ± 2+1 versus 38+5±2+0). The new-born birth weight was significantly lower (3056.7 ± 523.8g versus 3216.9 ± 546.4g) in the severe group. Severe adenomyosis didn't increase postpartum hemorrhage significantly. **Conclusion:** Severe adenomyosis is related to adverse perinatal outcomes.

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