Untitled

by Gabriel Levin

General metrics

1,881	291	13	1 min 9 sec	2 min 14 sec
characters	words	sentences	reading time	speaking time

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Writing Issues

15	1	14
Issues left	Critical	Advanced

Writing Issues

1 **Correctness**

1 Determiner use (a/an/the/this, etc.)

Unique Words

Measures vocabulary diversity by calculating the percentage of words used only once in your document

39%

unique words

Rare Words

Measures depth of vocabulary by identifying words that are not among the 5,000 most common English words.

47%

rare words

Word Length

Measures average word length

5

characters per word

Sentence Length

Measures average sentence length

22.4

words per sentence

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Background: Vaginal delivery is a common obstetric procedure associated with altered anatomy and physiology of the vaginal canal. Matrix metalloproteinase 9 (MMP-9) is an enzyme that plays a role in extracellular matrix remodeling and wound healing, and its expression may be altered by pregnancy and parturition.

Objectives: We aimed to investigate the impact of pregnancy and parturition on vaginal[1] angle and MMP-9 expression in a cohort of women.

Methods: We enrolled 173 women with a mean age of 25 ± 6 years and a body mass index of 20 ± 7 kg/m². We measured MMP-9 activity in the first and third trimesters of pregnancy and postpartum. We also measured the vaginal angle, defined as the angle between the vaginal axis and the levator plate, using transperineal ultrasound.

Results: The median MMP-9 activity increased postpartum compared to the third trimester (463.5 vs 130.8 ng/mg protein, P = .006). The vaginal angle became less acute from the first to the third trimester and this change persisted postpartum. In women who experienced uncomplicated vaginal delivery, the vaginal angulation over the levator plate became more acute between the third trimester and postpartum compared to those who did not (-6.4 ± 22.1 vs 17.5 ± 14.8 degrees, P = .017). Higher MMP-9 activity postpartum was associated with uncomplicated vaginal delivery, with 67% of women in the third tertile achieving uncomplicated vaginal delivery versus 39% in the first tertile (P = .029).

Conclusion: Pregnancy and parturition negatively impact vaginal angle and alter MMP-9 expression. Higher MMP-9 activity postpartum is associated with uncomplicated vaginal delivery, suggesting a potential role for MMP-9 in the adaptation of the vaginal canal to parturition. Transperineal ultrasound may be a useful tool for assessing the impact of pregnancy and parturition on vaginal anatomy.

1.	a vaginal, or the vaginal	Determiner use (a/an/the/this, etc.)	Correctness