Can mid-trimester cervical length predict the use of vacuum in vaginal delivery?

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Introduction
It is known that short mid-trimester cervical length (CL) is associated with increased risk of preterm birth. This study was to evaluate whether an increased CL measured in the mid-trimester is associated with vacuum-assisted vaginal delivery.

Methods
- A retrospective cohort study of two centers (529 women)
- January 2017 - February 2019
- Inclusion criteria
  - Singleton pregnancies
  - Mid-trimester CL (18-24 weeks)
  - Fullterm (≥ 37 weeks)
  - Vaginal delivery

Results
- The median gestational age at delivery was 39.4 weeks (range: 37.0-41.6 weeks) and 10.9% (36/331) were delivered with vacuum-assisted vaginal delivery.
- There was no relationship between mid-trimester CL and vacuum-assisted delivery (odds ratio (OR) 0.96, 95% Confidence interval (CI) 0.57-1.62) while nulliparity was associated with higher risk (OR 3.64, 95% CI 1.55-8.57).
- When the population was divided into three groups according to the range of CL, vacuum-assisted delivery was higher as the groups advanced in length in nulliparous women.

Conclusion
In term vaginal deliveries, the proportion of vacuum-assisted delivery was not significantly associated with mid-trimester CL.