

Descriptive analysis of demographic and obstetric variables related to short cervix in the second trimester of pregnancy

Renan Antonio Daniel (IC), Heloísa de Avó (IC), Rodolfo de Carvalho Pacagnella (PQ)

Abstract

Cervical length measurement is important to predict preterm birth. A cervical length cutoff to predict it, however, is still controversial. A descriptive analysis was conducted in order to evaluate variables collected from pregnant women who had cervical length measured in the second trimester. The average cervical length was 37,7mm and the prevalence for cervix ≤ 30 mm was 20% and 6,6% for cervix ≤ 25 mm.

Key words: preterm labor, uterine cervical length, ultrasound.

Introduction

The cervix is the most distal part of the uterus, a region that shortens as the pregnancy progresses. Its function is like a valve, keeping the fetus inside the uterus until pregnancy is complete. Measure cervical length is important to identify preterm birth risk (<37 weeks.), the leading cause of neonatal mortality. The cervix decreases 0.8 mm/week from 20 to 34 gestational weeks, but the optimal cutoff value that allows to classify pregnant women at risk of preterm delivery is still controversial. Main objective: To analyze descriptive variables of pregnant women screened for cervical length. Methods: Pregnant women between 18 and 23 weeks were invited to have cervical length measured in the second trimester by transvaginal ultrasound (TVUS). The interviewer applied a questionnaire with demographic and obstetric history at the time of the examination.

Results and Discussion

Thirty questionnaires analyzed. Mean age was 30.1 years-old; 84% lived with a partner; mean years in school were 11.2; Mean Body Mass Index was 27.5, 46.6% were obese; mean gestational age was 19.9 weeks. In this sample the prevalence of cervix ≤ 30 mm was 20% and ≤ 25 mm was 6,6%. There was no difference among the groups in any of the variables.

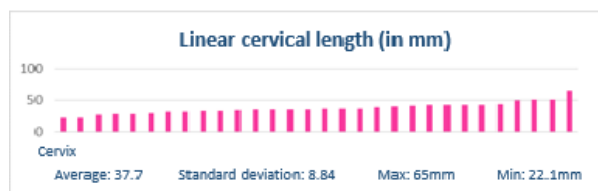


Image 1. Linear cervical length (in mm).

Chart 1. Cervical measurement (average in mm).

	mm
Linear cervical length	37,7
Curve cervical length	39,27
Antero-posterior cervical diameter	29,57
Transversal cervical diameter	34,73

Chart 2. Demographic and obstetric variables and cervical length.

	Short Cervix	No	Yes	Total
Colour	White	13	2	15
	Not-white	11	4	15
Gestations	until 1	13	5	18
	2 or more	11	1	12
Vaginal Delivery	0	16	5	21
	At least 1	8	1	9
Caesarean Birth	0	15	6	21
	At least 1	9	0	9
Abortions	0	14	4	18
	At least 1	10	2	12
Comorbidities	No	8	3	11
	Yes	16	3	19
Conization	No	22	5	27
	Yes	2	1	3
Uterine Anomaly	No	22	5	27
	Yes	2	1	3
Preterm History	No	21	6	26
	Yes	3	0	3

Conclusions

Although this a partial analysis of 10% of the expected sample, it seems that demographic and obstetric variables are not associated with uterine cervical length measured by TVUS in the second trimester. Prevalence of cervical length shorter than 30 mm was bigger in our sample than that currently found in the literature.

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¹ Berghella, V., Baxter, J. K., & Hendrix, N. W. Cervical assessment by ultrasound for preventing preterm delivery. *The Cochrane Database of Systematic Reviews*, 1, 2013; CD007235. doi:10.1002/14651858.CD007235.pub3.