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To establish Indian population-specific normative reference ranges for cervical length between 12 and 32 weeks of gestation

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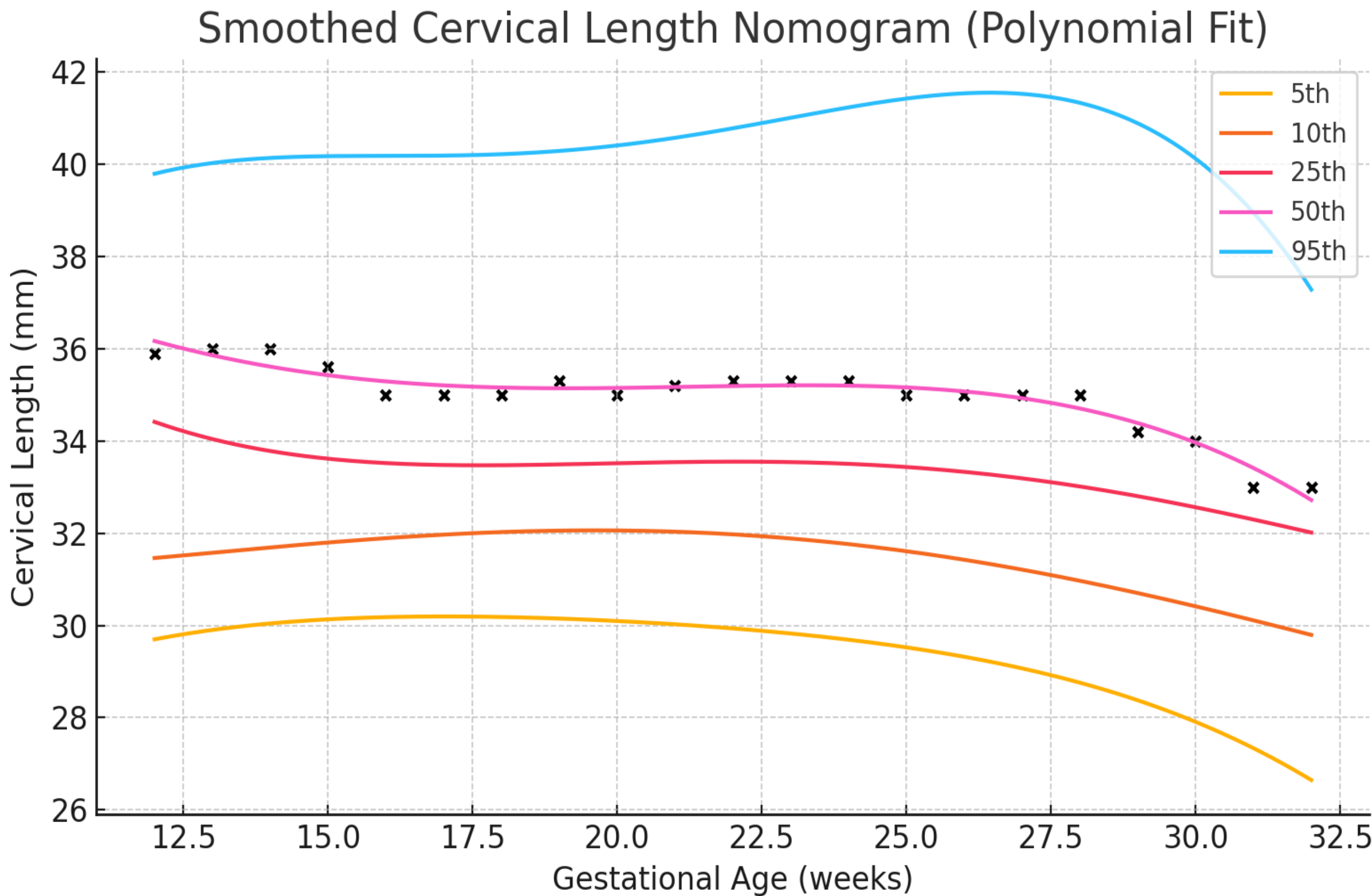
Objectives: Preterm birth remains a leading cause of neonatal morbidity and mortality in India. To produce the nomogram specific to Indian population of cervical length during 12-32 week scan. Cervical length assessment by transvaginal ultrasound is a well-established predictor of spontaneous preterm birth; however, most reference standards and risk thresholds are derived from non-Indian populations.

Methods: We conducted a large retrospective cohort study on 16522 patients to establish Indian normative cervical length data across gestation and to evaluate the association between cervical length and preterm birth outcomes. Cervical measurements from 16,522 pregnancies between 12 and 32 weeks of gestation were analyzed to generate gestational age–specific reference centiles and Z-scores. Exclusion criteria were fetal anomalies, GDM or any maternal or obstetric complications.

Results: Nomograms were created with 5th, 10th, 25th, attached in image. 50th and 95th centile as in image attached.

Conclusion: 50th centile is 36.5 VS 35 mm in Indian VS western population in second trimester of pregnancy , 5th centile is different 23 mm VS 15 mm in Indian VS western population, which is significant. Intervention may be needed at relatively longer cervix in India to avoid early preterm birth to reduce preterm birth related complications.

GA	5th	10th	25th	50th	95th
12	29	31	34	35.9	39.82
13	30.94	32	34.7	36	39
14	30	32	34	36	41
15	30.03	32	33.3	35.6	41
16	31	32	33.5	35	40.575
17	29	31.26	33	35	40
18	30	32	33.5	35	39.245
19	30	32	33.6	35.3	40
20	30	32	33.5	35	40.04
21	30.4	32	33.6	35.2	40.585
22	30.4	32	34	35.3	40.97
23	30	32	33.6	35.3	41
24	29.385	32	33.7	35.3	41.515
25	29.27	31.54	33	35	42.03
26	29.61	32	33.1	35	42
27	28.93	31	33	35	41
28	28.98	30.16	33	35	41
29	28.175	31.45	33	34.2	41.225
30	28	30	33	34	40
31	26.98	30	32	33	38
32	26.905	30	32	33	38



Centile	Equation								
5th	-7.3087e-05*GA^4 + 5.8990e-03*GA^3 + -1.8741e-01*GA^2 + 2.6554e+00*GA^1 + -2.9180e+01*GA^0								
10th	2.6110e-05*GA^4 + -2.3967e-03*GA^3 + 6.6282e-02*GA^2 + -8.4163e+00*GA^1 + 3.4921e+02*GA^0								
25th	7.0822e-05*GA^4 + -7.4476e-03*GA^3 + 2.7542e-01*GA^2 + -4.0921e+00*GA^1 + 1.9588e+02*GA^0								
50th	-3.2755e-05*GA^4 + 9.5427e-04*GA^3 + 2.7918e-01*GA^2 + -4.5873e+00*GA^1 + 2.2133e+02*GA^0								
95th	-3.4026e-04*GA^4 + 2.6483e-02*GA^3 + -5.8291e-01*GA^2 + 4.3478e+00*GA^1 + 1.2179e+01*GA^0								