

Uterine artery doppler nomogram in the Indian population
between 12-24 weeks of pregnancy

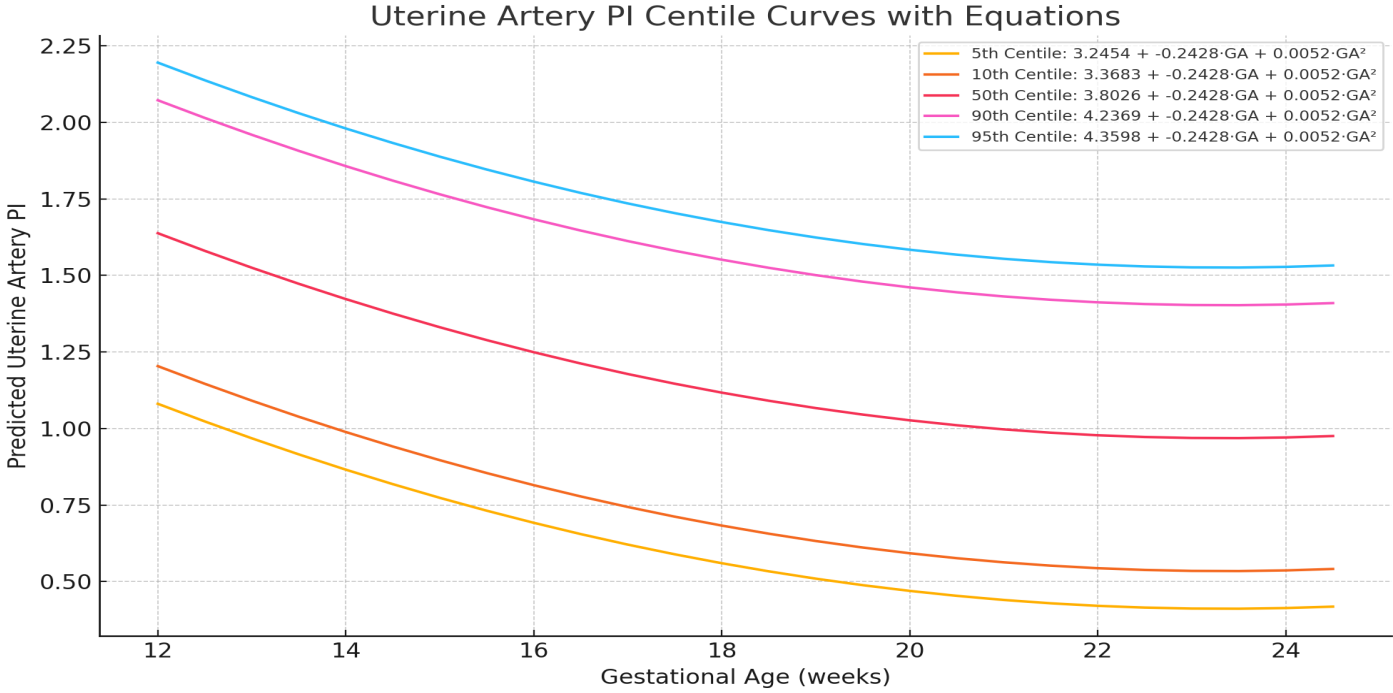
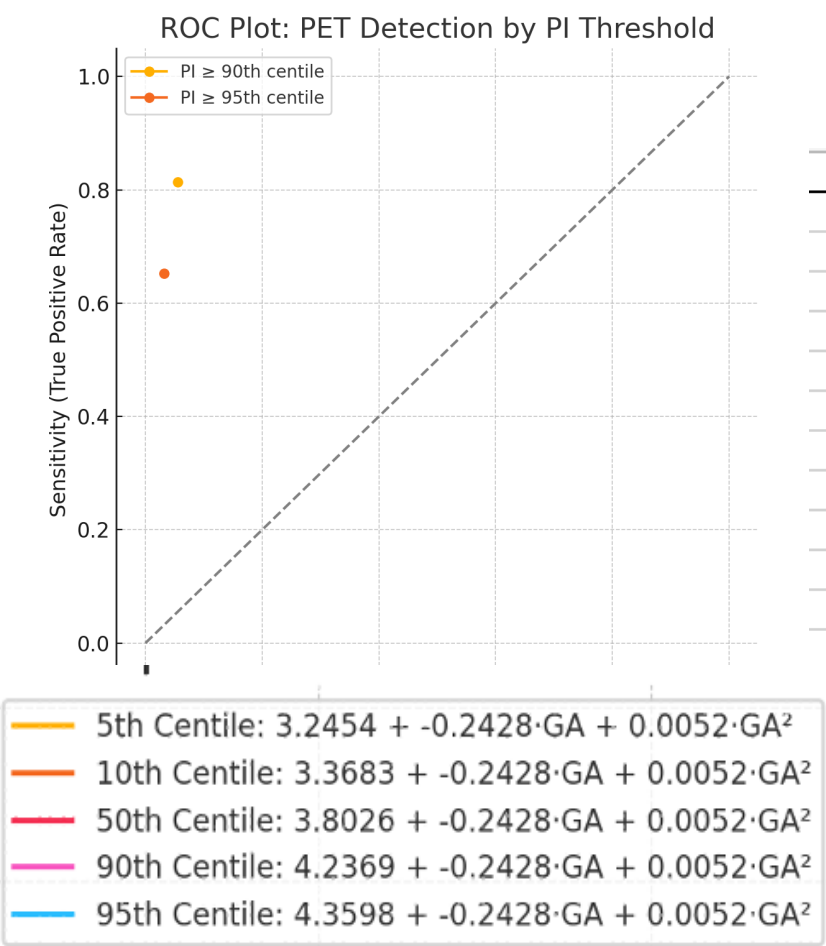
Prashant Acharya, Foram Prashant Acharya

Objectives: To establish nomograms of uterine artery Doppler in Indian population.

Method: 9,206 patients from January 2020 to June 2025 were identified. Mean uterine artery doppler was calculated by measuring both uterine artery doppler as per ISUOG protocol and guideline by either transvaginal route of trans abdominal route. Mean uterine artery doppler was calculated. Patients with multifetal pregnancy and medical disorders in pregnancy were excluded Mean uterine artery PI was 1.5 (at 12 -14 weeks), 1 (20-24 weeks). 2.1 between 12-14 weeks and 1.55 between 20-24 weeks was >95th centile. We also calculated likelihood ration at various PI as follows: uterine artery PI at 5th, 50th, 90th, 95th and 99th centile has 0.3,1,2.5,3.5 and 4.5 respectively. UT PI at 90th and 95th centile will predict 64% and 82% respectively.

Results: Polynomial equations are calculated to identify the 5th, 50th and 95th centile to use for the risk prediction for PET. Results are different from the western values and so population specific uterine artery PI data will predict the risk for PET more precisely.

UT PI at 90th and 95th centile will predict 64% and 82% respectively.



GA	5th Centile	10th Centile	50th Centile	90th Centile	95th Centile	
12	1.1	1.2	1.6	2.1	2.2	
12.5	1	1.1	1.6	2	2.1	
13	1	1.1	1.5	2	2.1	
13.5	0.9	1	1.5	1.9	2	
14	0.9	1	1.4	1.9	2	
14.5	0.8	0.9	1.4	1.8	1.9	
15	0.8	0.9	1.3	1.8	1.9	
15.5	0.7	0.9	1.3	1.7	1.8	
16	0.7	0.8	1.2	1.7	1.8	
16.5	0.7	0.8	1.2	1.6	1.8	
17	0.6	0.7	1.2	1.6	1.7	
17.5	0.6	0.7	1.1	1.6	1.7	
18	0.6	0.7	1.1	1.6	1.7	
18.5	0.5	0.7	1.1	1.5	1.6	
19	0.5	0.6	1.1	1.5	1.6	
19.5	0.5	0.6	1	1.5	1.6	
20	0.5	0.6	1	1.5	1.6	
20.5	0.5	0.6	1	1.4	1.6	
21	0.4	0.6	1	1.4	1.6	
21.5	0.4	0.6	1	1.4	1.5	
22	0.4	0.5	1	1.4	1.5	
22.5	0.4	0.5	1	1.4	1.5	
23	0.4	0.5	1	1.4	1.5	
23.5	0.4	0.5	1	1.4	1.5	
24	0.4	0.5	1	1.4	1.5	
24.5	0.4	0.5	1	1.4	1.5	

Conclusion: improper placentation is consider to be predictive of preeclamptic toxemia (PET) and Fetal growth restriction (FGR). Our data suggest that Indian uterine PI is lower as compared to western data published. Still there is higher chance of developing PET and FGR. So Aspirin prophylaxis should be started at lower threshed as compared to western data.