

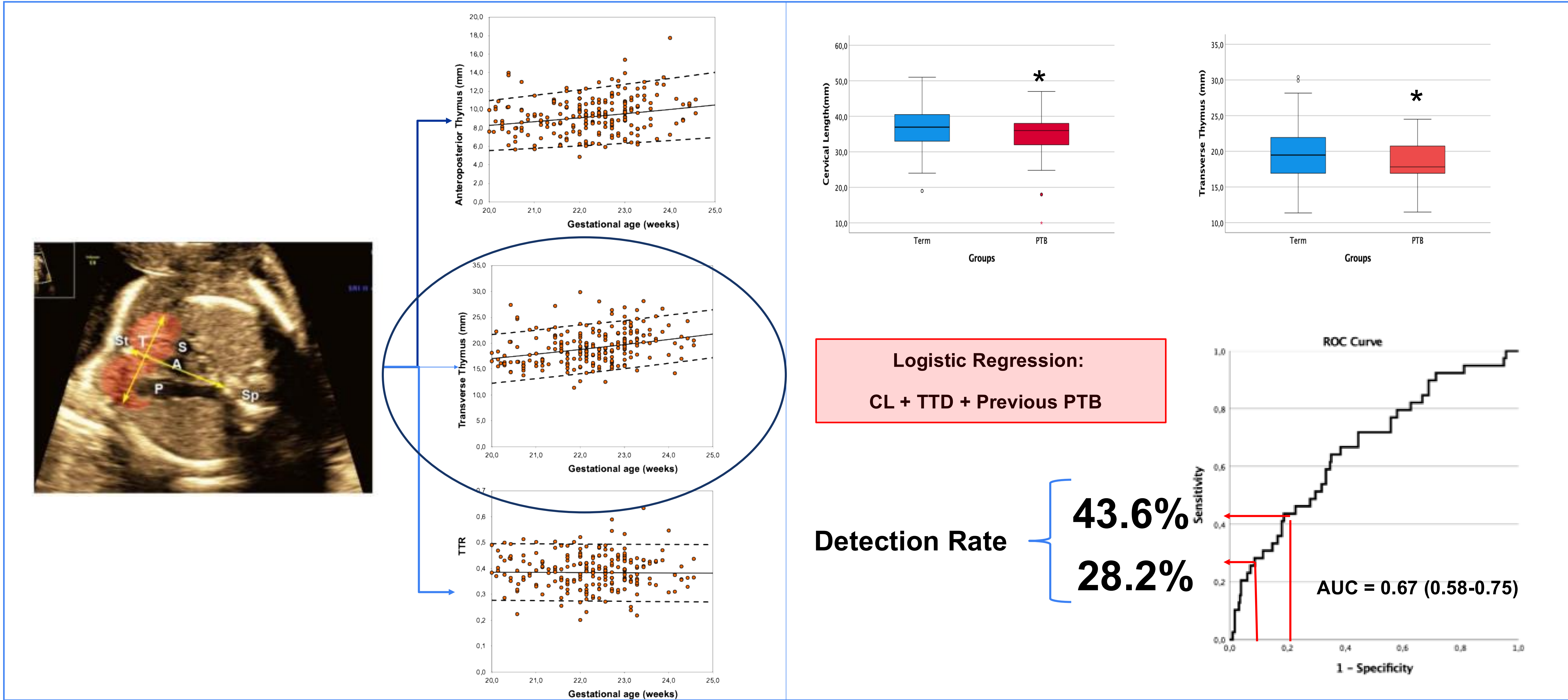
EP17.67 Association between fetal thymus size and preterm birth in a cohort of pregnancies undergoing second-trimester ultrasound. Parra-Cordero, M., Mocarquer, J., Abad, J., Sepúlveda-Martínez, A., Parra-Muñoz, M., Bonnell, S. Fetal Medicine Unit, University of Chile Hospital.

Aims of this study:

To **establish** a **nomogram** of normal fetal thymus values in the second trimester and **determine** an association between fetal thymus size in the second trimester and the **risk of preterm birth (PTB)**

Subjects and Methods:

- **Population:** 397 singleton
- **PTB** = 41 (10.3%)
- **Variables:**
 - **Dependent:** PTB
 - **Independent:**
 - Maternal characteristics (MCh)
 - Transverse Thymic Diameter (TTD)
 - Cervical length (CL)
- **Statistics:**
 - Fetal thymus Normograms at 20+0-24+6 weeks
 - MCh, TTD & CL were compared between PTB and term delivery groups
 - **Logistic regression analysis** was used to evaluate if any variable was significantly associated with PTB



Results:

Variables / Groups	Term	PTB
Maternal Age (y)	31.5 ± 5.2	31.7 ± 5.2
BMI (k/m2)	27.6 ± 4.6	28.6 ± 5.9
Height (cm)	159.8 ± 6.1	159.8 ± 6.6
Previous sPTB	4.2%	14.6% *
Cervical Length (mm)	36.9 ± 5.3	34.7 ± 6.7 *
Transv Thymus (mm)	19.66 ± 3.44	18.59 ± 3.02 *
AP Thymus (mm)	9.42 ± 1.97	8.94 ± 2.01
Thymic/Thorax Ratio	0.390 ± 0.067	0.382 ± 0.061

CONCLUSION

Fetal thymus is growing with gestational age. A smaller fetal thymus is associated with a higher risk of PTB. When combined with CL and prior PTB history, this model can identify approximately one-third of preterm births with 10% FPR.