Objective
To compare different ultrasonographic fetal weight estimation formulas in predicting the fetal birth weight of PPROM fetuses.

Methods
The medical charts of the PPROM patients were reviewed and singleton pregnancies with rupture of membranes before 37 gestational weeks were included in the study. Patients were eligible if complete ultrasonographic biometric measurements were performed within seven days before delivery. Based on the ultrasonographic measurements, the estimated fetal weight (EFW) was calculated according to the published formulas. The comparisons used estimated birth weight (EBW) and the observed birth weight (OBW) to calculate the mean absolute percentage error ($\frac{\text{EBW-OBW}}{\text{OBW}} \times 100$), mean percentage error ($\frac{\text{EBW-OBW}}{\text{OBW}}$) and their 95% confidence intervals.

Results
There were 234 PPROM patients in the study period. The median absolute percentage error for the 33 formula was 11.7%, 87.9% and 21.2% of the formulas yielded inaccurate results when the cut-off for median absolute percentage error was 10% and 15%, respectively. The formulas which had less than 10% absolute percentage error were Combs, OTT, Hadlock-3 and Vintzileos. The formula of Vintzileos was the only method which had less than or equal to 10% absolute percentage error in all age and weight groups (percentage error 0.7% and absolute percentage error 9.7%).

Conclusion
For PPROM patients, we believe that most of the formulas designed for sonographic fetal weight estimation had acceptable performance. The method of Vintzileos was the only formula having less than 10% absolute percentage error in all gestational age and weight groups, therefore may be the preferred method in this cohort.