Objective
To assess the performance of ultrasound in twin fetal weight estimation, screening of low birth weight and twin weight discordance.

Methods
A prospective study including fifty twin pregnancies. Each patient underwent ultrasonographic examination with estimated fetal weight up to 4 days before delivery. We calculated the median absolute difference and the median absolute percentage error between the estimated fetal weight and the birth weight. The correlation and the concordance were also assessed. Finally, we calculated the sensitivity, specificity, the positive predictive value and the negative predictive value of ultrasound in the diagnosis of the low birth weight and the twin weight discordance.

Results
The median absolute difference was equivalent for both twins. The median absolute percentage error was 7.7% [0-32] for the first twin and 8.2% [0-27] for the second twin. The proportion of estimates beyond 10% of actual birth weight was 38% for the first twin. We have noted a significant correlation between the estimated fetal weight and the birth weight for the both twins (R1=0.87; R2=0.89). In case of low birth weight, ultrasound had a sensitivity, specificity, positive predictive value and negative predictive value of 90.32%, 76.82%, 80% and 87% respectively. Ultrasonographic performance in the diagnosis of twin weight discordance varied depending on the adopted threshold. Chorionicity, presentation and gestational age did not have any influence in the performance of the fetal weight estimation.

Conclusion
Ultrasonographic examination is essential in the diagnosis and management of perinatal complications common in twins. Its performance is satisfactory in estimation of the fetal weight and depends on the threshold adopted for the diagnosis of twin weight discordance.