Background:
Ultrasound is a valuable tool commonly used in obstetrics. It has clearly earned its place in labor rooms. It has overcome the shortcomings of the clinical examination in the second phase of labor. Our objective was to investigate whether ultrasound-fetal weight estimation (US-EFW) is an independent and therefore potentially modifiable risk factor of caesarean delivery.

Methods:
Retrospective cohort from a single center conducted in a level 2b maternity over one year. We included all women with singleton pregnancies who delivered in our maternity with a gestational age greater than or equal to 39 weeks of amenorrhea. We excluded women with any contraindication to vaginal delivery and those in which an US-EFW was considered necessary in making obstetric decision. Parturient were enrolled in two groups: G1: parturient with US-EFW, G2: parturient without US-EFW. We compared the rate of cesarean delivery between the two groups with adjustment for potential confounders using logistic regression. A performance study was done by a correlation study (figure 1) and a concordance study (figure 2).

Results:
During the study period, 3000 women delivered in our service, 838 were included: 204 (24.4%) in G1 and 634 (75.6%) in G2. The primiparity rate was significantly higher in G1: 69.9% vs 49% in G2, with p <0.001. Similarly, gestational age and birth weight were significantly higher in G1. Moreover, we have not objectified significant difference in terms of maternal age and obesity rates. The cesarean delivery rate was significantly higher in G1: 54.7% vs 19.7% (p <0.001). Primiparity, US-EFW and birth weight were the significant risk factors of cesarean delivery. After adjustment for confounders, US-EFW systematically performed in deliveries rooms is a significant and potentially modifiable risk factor for cesarean delivery.

Conclusion
Us-EFW systematically performed in deliveries rooms is a significant and potentially modifiable risk factor for cesarean delivery.