EP18.14 - Estimated fetal weight: comparison between weight estimate based on the symphysis-fundus height measurement and weight estimate based on ultrasound measurements

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**Objective.**
To evaluate the accuracy for neonatal weight prediction at birth of ultrasound estimated fetal weight (EFW) and of weight estimate based on symphysis-fundus height (SFH) measurement.

**Materials and methods.** Data from 100 single consecutive pregnancies were prospectively evaluated. The Standard Deviation Score (SDS) was calculated on an Italian specific curve and adjusted for gestational age, parity and fetal/neonatal sex. We considered neonatal weight and the following EFWs: Hadlock, Scioscia, Woo, Shepard, Jordaan, Shinozuka, Combs, and Johnson.

**Results.** Estimated ultrasound weight was made at an average gestational age of 37.06 weeks (± 0.76) while delivery occurred at an average of 39.32 weeks (± 1.05). Among the the Hadlock formulas the one considering BPD, AC, HC and FL was the more accurate. In addition, Hadlock, Scioscia, Shepard and Combs formulas performed better than others. The Johnson formula shows a significant overestimation of SDS (0.813 (IC al 95% 0.639 - 0.986) p<0.05). **The most predictive formulas for SGA were Hadlock and Shepard. While, considering LGA prediction the most predictive is Johnson** (AUC 84.66% CI 95% 79.81% -89.5%) (with a significantly higher AUC than Scioscia (58.55% CI 95% 38.85% -78.25%) and greater than Combs (67.61% CI at 95 % 49.61% -85.61%) p = 0.072) followed by Hadlock (77.27% CI 95% 59.12% -95.43%).

**Conclusions.** Our data shows that EFW based of symphysis-fundus height measurement shows a a significant overestimation of EFW with a reduced accuracy to predict SGA, while is the best predictig formula for LGA fetues.