Obese pregnancy ultrasound study (OPUS) – preliminary results

Comanescu A, Tanase F, Pana R, Capitanescu R, Tica O, Sirbu O, Comanescu C – UMF Craiova

Introduction

In the last 10 years, we confronted with increasing numbers of women with a BMI over 30. The challenge of the 22 weeks anatomy scan, together with the necessity of a second look, usually at 24 weeks, persuaded us to make a special screening protocol for these women – OPUS. The screening program started January 2017.

Method

We decided on a three steps approach, destined to check all the boxes mentioned in the midtrimester anatomical survey provided by the ISUOG Guidelines. The scans were performed at 12 - 14 weeks (first trimester scan), 15 – 17 weeks (early second trimester scan), 20 – 23 weeks(mid trimester scan). The choice for the above mentioned gestational age was based on prior experience with obese pregnant women. Only patients who completed all three steps were included in the study. Transabdominal and transvaginal ultrasound were allowed at all examinations where they were considered feasible. All examinations were performed on Voluson e8 ultrasound machines, using RIC 5-9D and RAB-6D probes. In order to avoid time pressure issues, we allocated 60 minutes for each examination.

Results

We examined a total of 98 women, with an average BMI of 36.21. 47 patients had class I obesity (47.95%), 36 had class II obesity (36.73%), and 15 patients had class III (15.3%). The average age of the assessment was 12weeks + 6 days for the first trimester scan, 15w + 6d for the early second trimester scan and 21w+3d for the mid second trimester scan. The examination protocol was completed for 94 out of 98 patients (95.91%). Sonograhers who completed the check list were made aware to check only those structures they were convinced were normal; they were unaware of the results of the previous ultrasound scans. The integration of a detailed first trimester anomaly scan helped us exclude early severe anomalies from the study (one case of anecefaly, one case of trisomy 13, and one case of hipoplastic left heart syndrome).

A significant help of the early second trimester was in the evaluation of the fetal heart, hands, feet and kidneys. Patient acceptance was very good and felt they were provided special care, despite sometimes prolonged transvaginal examinations. Patient drop-out from the study was 14.78% (17 patients), most of them missed appointments.

Conclusion

We believe that our protocol can improve quality assessment of the obese pregnant women and further studies will show it also increases anomaly detection rates.