Fetal growth in spontaneous and IVF pregnancies: A prospective study
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Objective
To compare fetal growth in the first and second trimesters of pregnancy and final birth weights between two groups of women: a) spontaneous conceptions and b) IVF pregnancies on progesterone supplementation during the first trimester.

Methods
A total of 211 pregnant women were included in the study. We included in the first group, 73 singleton IVF pregnancies on progesterone supplementation and in the second group (control group), 138 singleton spontaneous pregnancies with certain dates of last menstrual period (LMP). Exclusion criteria were: use of medications or presence of medical conditions affecting fetal growth. Over a period of 15 months (January 2013 to March 2014), data of fetal crown-rump length (CRL) measurements at 10+1 to 13+6 weeks of gestation, and fetal abdominal circumference (AC), head circumference (HC), biparietal diameter (BPD) and femur length (FL) measurements at 18-24 weeks, were collected prospectively. Independent samples t test was applied for comparing quantitative variables with normal distribution, and Mann-Whitney U test was used for comparison of quantitative variables without normal distribution.

Results
IVF fetuses on progesterone supplementation had increased CRL measurements when compared to their counterparts from spontaneous pregnancies (p value = 0.045). In the second trimester, the BPD was significantly larger in group B but HC, AC and FL although larger did not reach statistical significance. The birthweights of babies between the two groups showed no statistically significant difference.

Conclusion
Enhanced fetal growth at 10+1 to 13+6 weeks of pregnancy has been observed with progesterone supplementation during the first trimester in IVF pregnancies. Aspects of enhanced fetal growth were observed in the second trimester but not at birth.