**Introduction**

During the pregnancy, expectant mothers usually present anxiety related to the acceptance of body changes, growth of the fetus, and, at the third trimester, maternal anxiety increases related to fear of labor and the need for re-adjustment of life style with others and the new baby.

**Objective**

To evaluate the association between maternal anxiety and fetal or maternal circulation assessed by Doppler velocimetry.

**Methods**

Prospective, cross-sectional study. The inclusion criteria were good health, a singleton pregnancy, maternal age between 18 and 40 years, gestational age between 34 and 40 weeks, and an agreement to participate in the study.

Doppler measurements: mean uterine artery (UtA) pulsatility index (PI), fetal middle cerebral artery (MCA) PI and peak of systolic velocity (PSV), umbilical artery (UA), and umbilical vein (UV).

The Beck Anxiety Inventory (BAI) questionnaire, validated for the Brazilian population, with 21 self-reported items was applied. BAI score classified the anxiety: minimal (0-10), mild (11-19), moderate (20-30) and severe (31-63). Data were compared using the Mann Whitney U test, with 0.05 significance level.

**Results**

34 pregnant women

Moderate or severe maternal anxiety: 6 (17.7%)

Maternal age: 28.1 y (SD 5.7y)

55.1% nuliparous

GA at interview: 36.5 wks (SD 1.8wks)

GA at delivery: 40wks (SD=1.0wks)

Total BAI total score: 12.3 (SD 9.8).

**Conclusion**

Maternal anxiety seems to affect fetal circulation patterns in late pregnancy and is associated with reduced blood flow in the fetal umbilical vein. The underlying physiopathology needs further investigation.