Objective
To evaluate the correlation between placental pathology classified as “jelly like” (a) and spherically thick placenta (b), Doppler parameters and angiogenic factors sFlt-1, PLGF and their ratio.

Material and Method
Cases with sonomorphologic pattern of “jelly like” (patchy degree of echogenicity) and a spherically thick placenta (inhomogeneous echogenicity with suspected infarction and necrosis) and with known angiogenic profile of the last 10 years were included. Umbilical (UA) and uterine artery (uA) Doppler and clinical data were investigated. Paired t-test and nonparametric correlation were used for statistical analysis.

### Results
24 cases with “jelly like” (group 1) and 29 with spherically thick placenta (group 2) were included. Significant differences were seen in UA PI > 95th centile, sFlt-1 and in earlier occurrence of clinical symptoms in group 1. Both groups had a high rate of adverse outcome such as prematurity, preeclampsia (PE) and fetal growth restriction (IUGR). Correlations were significant between UA PI, placental weight, placental thickness and PI GF and sFlt-1/PI GF ratio and between utA PI and PLGF in both groups. Placental thickness also correlated with sFlt-1 in group 2.

### Conclusion
Both placental pathologies are sonomorphologic signs for a severe angiogenic disturbance and correlate with changes in feto-maternal hemodynamic and with adverse pregnancy outcome. “Jelly like” placenta seems to be associated with a more severe maternal angiogenic response.