Objective
There are known complications of monochorionic twins: TTTS (twin to twin transfusion syndrome), sIUGR (selective intrauterine growth restriction), TAPS (twin anemia polycytemia sequence), TRAP (twin reversed arterial perfusion). The most frequent cases are TTTS, sIUGR and their combinations. The study is based on detail placental vessels architecture analysis correlated with known clinical courses. Conversely, with known clinical course, the prediction of probable placental vascular architecture is possible and this knowledge serves as the tool for easier decision regarding intraterine intervention, management and patient consultation.

Methods
We examined 105 placentas using histological colors. The history of clinical course was known in all cases including complete ultrasound measurements. Placentas which were not applicable for analysis or cases with unknown clinical courses were excluded.

Results
We defined 5 most frequent types of clinical courses of monochorionic twins. The type I - physiological course, type IIa clear slow course of TTTS, type IIb - clear fast course of TTTS, type III - flow type III of sIUGR, type IV clear sIUGR and type Va, b - combination of TTTS and sIUGR depending on the way and contribution of transfusion. TRAP and TAPS placentas were also defined separately.

Conclusion
The knowledge of placental vascular architecture together with known clinical course (ultrasound findings) of monochorionic twins is useful tool for the next management and patient consultation.