The purpose was to study the differential features of ultrasonographic (US) monitoring and perinatal results with various specific complications of monochorionic (MC) multiple pregnancy.

Material and methods. A prospective study in the tertiary center. US monitoring was conducted in 112 women with MC pregnancy (236 fetuses). Postnatal results were classified as follows: adverse general postnatal outcome (GPO) meant perinatal or infant death; adverse clinical postnatal outcome (CPO) meant severe neonatal morbidity. Results. In 54/112 (48.2%) patients some US features and sequences of changes were observed. 15 patients had twin-to-twin transfusion syndrome unimproved and after laser (TTTS, 1,2); 3 those had acute peripartum inter-twin transfusion (AITT, 3); in 1 case there was anemia-polyctemia sequence (TAPS, 4); selective fetal growth retardation (sFGR, 5) was detected in 28 cases/56 fetuses and 11 cases (6) of 2+ multiple pregnancy (10 MC triplets; 1 MC quadruplets, 34 fetuses). After single intrauterine death (SIUD, 7) 7 MC pregnancies were monitored. The incidence of unfavorable GPO was 43/236 (18.2%). In the presence of US features and anomalies of MC fetuses, the death rate was higher - 43/148 (29%). US signs of the surviving twin’s brain injury were observed in 2/7 cases of SIUD. The most unfavorable GPO were in unimproved TTTS, and the most unfavorable CPO were in sFGR. AITT (fig. 2-4) did not have any specific antenatal predictors. Abnormal Doppler by type of intermittently absent umbilical artery flow (IUAF) were difficult to interpret and had a moderately increased risk of adverse GPO and CPO (OR 1.88; 1.64-2.09 95% CI).

Conclusions. Specific anomalies of MC multiple pregnancy as TTTS, TAPS and sFGR have some similar US signs but different perinatal prognosis. AITT may not have any specific antenatal predictors. It is extremely difficult to evaluate the degree of perinatal risk in MC twins with IUAF.