EP22.22. Matching of angiography and ultrasound picture in patients with abnormal placentation
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Introduction
Placenta invasion is an abnormal variant of placentation which associated with high risks life threatening bleeding.

Aim
Determination of x-ray angiographic criteria for pathological vascularization in various forms of abnormal placentation attachment.

Materials and methods.
From 2010 to 2017, 49 patients with a diagnosis of placenta previa in a period of 32 to 37 weeks examined and treated. The average age of the subjects was 30.8 years. In 45 (97.83%) of all re-pregnancies, delivery of a previous pregnancy was performed by the CS and in 20 (44.44%) CS performed twice. Placenta previa found in all cases and in 45 (91.84%) of them echographic signs of placental invasion visualized. All pregnant women underwent operative labor in x-ray angiographic operating room followed by angiography of the internal iliac arteries and uterine arteries with embolization of the vessels supplied the uterus.

Results and discussion.
According to the results of the placenta detachment, the patients divided into 3 groups: In first group (28 patients - 57.14%) - the placenta was completely removed, no bleeding. In second group (6 patients, 12.24%) - the placenta was not completely removed due to a partial placental invasion, fragments of the placenta were left in the uterus. In third group (15 patients, 30.61%) - the placental separation was impossible, a hysterectomy was performed. In all groups, uterine artery III trimester pregnancy remodeling criteria found expansion of afferent arteries 2-3 orders of magnitude, hypervascularization and arterialization of soft tissues in the placentation zone. In accordance with the data obtained, the main x-ray angiographic increment criteria highlighted: 1. One (large) or several areas of intensive accumulation of a contrast agent - vascular lacunae. 2. Early contrasting of draining veins (2-3 seconds). 3. Pathological venous by micro and macrolutal arteriovenous malformations. 4. A decrease of soft tissues surrounding the lacunae contrasting.

Conclusions.
The angiographic picture analysis allows us to evaluate the vascular anatomy of the site of the placenta invasion, collateral blood flow and determine the further delivery tactics.

Figure 1. Angiography of left uterine artery. Contrast accumulation in vascular lacunae.
Figure 2. Ultrasound picture of placental invasion zone. High velocity turbulent flow in implantation zone.
Figure 3. Angiography of left uterine artery, venous phase. Massive shunting of contrast media in to pelvic venous system.