Introduction

Growth restricted fetuses (FGR) are at high perinatal mortality risk and require careful and consistent monitoring. Fetal intrauterine condition is commonly followed by ultrasound examination, nonstress test (NST) and doppler examination of central arteries, that are sometimes less informative, especially in late pregnancy, so we also investigated the peripheral artery, a. tibialis.

Case report

We present a case of a 33-year-old woman G2 P2 diagnosed with FGR at 27th gestational week at Perinatology Centre of Vilnius University Hospital Santaros Klinikos. From 32th to 37th pregnancy week, monitoring twice a week involved NST and doppler examination of tibial, fetal umbilical, middle cerebral, ductus venosus and uterine arteries. Normal parameters of all the arteries were observed until 34+5 weeks, when the first pathological change of increased pulsality index in the tibial artery was registered. Fetal biometry showed EFW of 1,504 g, below 10th percentile, asymmetrical growth restricted fetus. From 34+5 weeks to 36+2 weeks the abnormal PI increase was found only in the tibial artery Fig.1, Fig.2, while the umbilical Fig.3, middle cerebral Fig.4, ductus venosus and uterine arteries were normal. NST was normal too. At 37+1 weeks a female newborn was delivered by induction, 1,790 g, below 5th percentile, 46 cm of height, 9/9 Apgar points, umbilical cord pH 7.33.

Conclusion

In conclusion, this is a fetal growth restriction case monitored adding peripheral artery doppler examination a. tibialis, as the first indicator of the deteriorating condition of the fetus.