

Since the early 90th of the last century there is a worldwide effort to find the method or the group of prenatal diagnostic methods, which wouldn't be invasive for the fetus and wouldn't handle information about fetus already in the earliest stage.

For this reason there was a search for both the ultrasound markers and biochemical markers. It was very important to find the method that would be able to disclose any pathology as soon as possible, it means in the first trimester of pregnancy.

Appropriate options' combination of ultrasound screening and advantage of setting the biochemical markers offer increased likelihood of prenatal detection capability while maintaining a low rate of false positivity.

In I. trimester PAPP-A is used as one of the markers in combined screening of aneuploidies. According to available resources the serum concentration of PAPP-A is significantly reduced between 8 – 14. week below 0,5 MoM in fetuses with Down syndrome.

In this monitored set of women (without monitoring of other ultrasound and biochemical markers) 92% of isolated PAPP-A value below 0.5 MoM was associated with birth of healthy fetus.