Changes of immune parameters induced by intraamnial inflammation

Abstract

Intraamniotic infection plays an important role in the etiology of preterm birth and can lead to a serious threat to fetal health. The diagnostic approach is based on direct microbiological detection of an infectious agent or indirect detection by determining various biomarkers, which concentration increases during intraamniotic infection. Due to the nature of the infection, these parameters are determined from amniotic fluid, which makes this diagnosis difficult for both the doctor and the mother and routinely unavailable. The dissertation comments the published results of a scientific team whose aim was to identify suitable markers of infection, determine their concentration in amniotic fluid and test their diagnostic potential in cervical fluid, ie biological material that can be collected non-invasively. Amniotic and cervical fluid samples were taken from women with singleton pregnancies with preterm labor and that were complicated by intraamniotic inflammation and infection in part of the cohort. It was found that among the tested molecules there is a statistically higher concentration of calreticulin, cathepsin G, CD11b, FcgammaBP and MIP1α in amniotic fluid during intraamniotic infection. Significantly higher levels of FcgammaBP were found in the cervical fluid samples from patients with intraamniotic infection with preterm leakage of amniotic fluid. It is thus the most diagnostically useful newly demonstrated marker of intraamniotic infection.