

Mononuclear leukocyte infiltrate in extraplacental membranes and preterm delivery

Holzman, Claudia

Deskripsi Lengkap: <https://lib.fkm.ui.ac.id/detail.jsp?id=102113&lokasi=lokal>

Abstrak

Large numbers of polymorphonuclear leukocytes in the amnion and chorion define histological chorioamnionitis (HCA), a condition linked to spontaneous preterm delivery (PTD). Less is known about placental patterns of mononuclear leukocyte (MNL) density and PTD. In this prospective study (1998-2004), women were sampled from 52 clinics in 5 Michigan communities and enrolled at 16-27 weeks' gestation. HCA and MNL distributions in delivered placentas were evaluated microscopically in a subcohort (290 preterm, 823 term). Midpregnancy biomarkers from maternal blood (i.e., C-reactive protein (CRP), corticotropin-releasing hormone, and cytokines) were compared among term and PTD subjects grouped by presence/absence of HCA and high MNL density. A density of more than 10 MNLs per high-power field in the chorion of the membrane roll, referred to as MNL-CMR, was associated with medically indicated PTD (odds ratio = 2.2, 95% confidence interval: 1.3, 3.6) and spontaneous PTD (odds ratio = 2.5, 95% confidence interval: 1.7, 3.7). Associations persisted after removal of women with HCA-positive placentas, abruption, hypertensive disorders, or obesity. HCA-associated PTD showed higher CRP and cytokine levels. MNL-CMR-associated PTD showed higher CRP and corticotropin-releasing hormone levels. These data suggest that an MNL infiltrate in the chorion of the membrane roll marks PTD pathways that are distinct from HCA and not entirely explained by pregnancy complications.