Increased Expression of Pattern Recognition Receptors and Nitric Oxide Synthase in Peritoneal Fluid of Women with Endometriosis

Abstract ID : 1706
Soumis par : Yong Joon Choi Le 2016-03-15 11:41:19
Nom de la catégorie : SEUD CONGRESS
Typologie : Poster
Statut : validé
Autorisation de diffusion : Yes/Oui

Introduction: Endometriosis is characterized by repeated inflammatory change and serious adhesion, inducing innate and adaptive immune responses within the abdominal cavity. To assess these immune responses, we evaluated the levels of expression of Toll-like receptors (TLR)-1, -2, -4, -5, and -9; nucleotide-binding oligomerization domains (NOD)-1 and -2; interleukins-1β, -6, -8, -10, and -12; interferon-γ; tumor necrosis factor-α; inducible nitric oxide synthase (iNOS) and endothelial NOS (eNOS); and immunoglobulins (Igs) in peritoneal fluid of women with endometriosis.

Materials and Methods: Intraperitoneal fluid samples were obtained from 40 patients with endometriosis and 40 cases without endometriosis during laparoscopic gynecologic operation. The levels of TLRs, NODs, cytokines, and NOS mRNAs in peritoneal effusion collected during laparoscopic gynecologic operations, were assessed by real time polymerase chain reaction, and IgG, IgA and IgM concentrations were measured by enzyme-linked immunosorbent assays (ELISA) in 40 patients with and 40 without endometriosis.

Results: We observed expression of all Pattern Recognition Receptors (PRRs), cytokines, and NOS mRNAs and immunoglobulins in the effusion fluid of patients with and without endometriosis. The levels of TLR-2 and -9; NOD-1 and -2; iNOS and eNOS mRNA and CA 125 were significantly higher in the endometriosis than in the non-endometriosis group (p<0.05 each). Moreover, PRRs, cytokine, and NOS showed significant correlations (p<0.05).

Conclusions: PRRs, cytokines, and NOS, which act cooperatively in the innate immune response, are closely associated with endometriosis. Increased expression of TLR-2, TLR-9, NOD-1 and NOD-2, and NOS mRNA in peritoneal fluid may be associated with endometriosis.

Mots clefs : endometriosis, peritoneal fluid, pattern recognition pattern

Auteurs : Yong Joon Choi 1, Chu Yeop Huh 1,
1. ObGyn, Kyunghee University Hospital, Seoul, KOREA, REPUBLIC OF

Auteurs (raw format)

Choi Yong Joon - email : caduceus4u@naver.com Etablissement : Kyunghee University Hospital Service : ObGyn Ville : Seoul Pays : KOREA, REPUBLIC OF Présentateur : Oui
Huh Chu Yeop - email : caduceus4u@gmail.com Etablissement : Kyunghee University Hospital Service : ObGyn Ville : Seoul Pays : KOREA, REPUBLIC OF Présentateur : Non