

Increase in the expression of killer cell inhibitory receptors on peritoneal natural killer cells in women with endometriosis

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摘要

Abstract

Objective: Malfunction of peritoneal natural killer cells (NK) may result in endometriosis. The present study was designed to determine whether the decrease in NK cytotoxicity occurs at early and advanced stages of endometriosis and is due to the increase in the NK inhibition receptors. Design: A case control study. Setting: A tertiary-care infertility center. Patient(s): A total of 44 women (controls, n = 11; women with early-stage endometriosis, n = 11; and women with advanced- stage endometriosis, n = 22) were included in this study. Intervention(s): Laparoscopic examination. Main Outcome Measure(s): NK cytotoxicity was determined by assay of Cr-51 release against K562 cells, and the expression of killer cell inhibitory receptors (KIR, including NKB1, GL183 , and EB6) in NK cells was examined by flow cytometry. Result(s): Women with endometriosis showed a decrease in peritoneal NK cytotoxicities against K562 at early and advanced stages of endometriosis. The expression of KIR (NKB1 and EB6) was significantly elevated in the peritoneal NK cells of women with advanced-stage endometriosis compared with controls. KIR (NKB1) was also significantly increased in peritoneal NK cells of women with advanced-stage endometriosis, compared with those of women with early-stage endometriosis. Conclusion(s): The results of this study suggest that the decrease in peritoneal NK cytotoxicities against K562 is observed and that this disease may be partially due to the increased expression of KIR on these NK cells. (Fertil Steril(R) 2000;74:1187-91. (C) 2000 by American Society for Reproductive Medicine).