Introduction: Leucocytes accounted for 26-36% of the stromal cells in decidua of the first trimester of gestation in which 75% of them is related to endometrial granulated lymphocytes (eGL) with an unusual natural killer (NK) cell-like phenotype. Different roles are proposed for eGL, but fundamental role of these cells in control for normally understood.

Material and Methods: In this study immunosuppressive activity of supernatants prepared from ten sample of normal first trimester decidua which cultured into cell suspension and corresponding purified eGL were investigated using. PHA-induced lymphoproliferation assay.

Results: The results showed that although supernatants from purified 24 hours eGL at 50% concentration tended to show increased immunosuppressive activity compared with the corresponding unfractionated cell suspension supernatants, the results did not reach significance..

Conclusion: It seems eGL can mediate immunosuppression activeity in human uterus, but whether this activity is crucial for survival of feto-placental unit real pregnancy is not clear. more investigation in pathological pregnancy.

Key Words: granulated lymphocyte, decidua, immunosuppression.