People working in night shifts, melatonin suppression following exposure to artificial light at night, is correlated with the incidence of breast and endometrial cancer. Oncostatic action of melatonin includes: direct increment of natural killer (NK) cells, stimulating the production of interleukine (IL-2, 6, 12), significant reduction in the expression of endogenous vascular endothelial growth factor (VEGF).

This study presents the evaluation of the relationship between night shift work and the risk of endometrial cancer by increasing systemic inflammatory status (IL-6, tumor necrosis factor -?, secondary increase in visceral fat.

Material and methods
The present study is representative sample type analysis which includes a group of patients: - 88 patients diagnosed with endometrial cancer. The diagnosis of endometrial cancer was established after histopathological examination examining tissue material obtained by endometrial biopsy. For each patient studied was evaluated the nocturnal activity, expressed by the number of years that the patient worked in night shifts, and also was determined the intraperitoneal fat through ultrasonography (US) for all of them.

For each subject included in the study was collected and analyzed IL-6, TNF-?. All parameters were included in the study database for statistical analysis using SPSS version 13 and Microsoft Excel Analysis Tool Pack.

Results
Intraperitoneal fat assessed by US. was significantly higher (p <0.004) in patients with nocturnal schedule compared to patients who did not work in night shifts.

The serum IL - 6 was not significantly higher (p = 0.08), while plasma levels of TNF-? was significantly higher (p <0.001) in patients with nocturnal schedule compared with patients who did not have activity at night.

Conclusions
Nighttime activity is positively correlated with visceral fat, plasma levels of TNF-? through their being able to explain the increased incidence of endometrial cancer.