

SEX HORMONES AND NUCLEAR APPENDAGES

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Abstract Body

Background : Some nuclear neutrophils contain a small chromatin mass appended to one of their nucleus lobes. To date, their nature has remained uncertain. Some published data demonstrated that the frequencies and the distribution of these appendages were influenced by sex and by many other factors such as hormones, granulocytes metabolism, cell proliferation, and age. **Objective :** This blind study was designed to check whether appendages are related to sex hormones and change with menstrual cycle phases or not. **Design :** Nuclear appendages were studied in ten women during different phases of menstrual cycle. A written consent was obtained from each individual. Ages of the individuals varied from 25 to 35 years old. None of them had history of malignancy, severe systemic infection, pregnancy, recent transfusions, malnutrition, consumption of oral contraceptives or any other medication that affects the menstrual cycle. Peripheral blood samples were collected into EDTA tubes at different phases of the menstrual cycle (1st day, 7th, 14th and the 21st). At the time blood samples were taken, whole blood count were studied. Blood smears were performed from each tube, stained then observed under immersion oil light microscope. Two hundred polynuclear neutrophils were examined for nuclear appendages for each sample and classified into four groups : neutrophils with form A (drumstick), form B (sessile nodules) or form C appendages (tag and hook) and neutrophils without any appendages. **Results :** The difference (A-C) was calculated for each slide. There were significant variations of the (A-C) during the menstrual cycle for each individual but these variations were not homogeneous from a woman to another. **conclusions and acknowledgements :** These results support the hypothesis that there is no relationship between oestrogen and appendages formation.