

P304. Actions of phytoestrogens or estrogens on the proliferation of the rat in uterine cervix

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Despite estrogen therapy is widely used against post-menopausal symptoms, it can present adverse effects including breast and endometrial cancer. Soy isoflavones are considered a possible alternative to the estrogen therapy. However, there is still a debate whether this compounds exerts significant trophic effects on uterine cervix. Objectives: To evaluate the histomorphometric and immunohistochemical alterations in the uterine cervix of ovariectomized rats treated with soy isoflavones (ISO). Methods: Fifteen adult Wistar rats were bilaterally ovariectomized (Ovx) and divided into three groups: Group I (Ovx) – received vehicle solution (propilenoglicol); Group II (OVX-ISO) - received with concentrated extract of ISO (150 mg/kg) and Group III (OVX-E2) - treated with 17 β -estradiol (10 μ g/kg), by gavage for 30 consecutive days. Afterwards, the uterine cervix was collected, fixed in 10% formaldehyde buffered solution and processed for paraffin embedding. Sections (4 μ m) were stained with Hematoxilin and eosin for morphological and morphometric studies, or subjected to immunohistochemistry for detections of Ki-67 and vascular endothelial growth factor (Vegf-A). The obtained data were subjected to statistical analysis ($p \leq 0.05$). Results: We noted an atrophic uterine cervix in the GI (Ovx), whereas it was more voluminous in the GII (Ovx+ISO) and even more voluminous in the GIII (Ovx+ E2). The thickness of the cervical mucosa was significantly higher in GIII (Ovx-E2), as compared to GI (Ovx) and GII (Ovx-ISO). The cell proliferation (Ki-67) was significantly elevated in the estradiol and isoflavones treated groups, whereas the Vegf-A immunoexpression was significantly higher in the GIII (Ovx-E2), as compared to GII (Ovx-ISO) and GI (Ovx) groups. Conclusions: Soy isoflavone causes less trophic and proliferative effects in the uterine cervix of Ovx rats, as compared to estrogen.

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