Objectives: To evaluate the effects of immediate and lately treatment of isoflavones and 17β estradiol in the mammary gland of ovariectomized rats. Methods: 35 adult OVX female rats were divided into seven groups: GI / SHAM, OVX rats - Pseudo, GII / CI- Control - Immediate; GIII / CT- Control - Late (Propylene Glycol), GIV / ISOI - Isoflavones immediately treated (150 mg/kg/day), GV /ISOT Isoflavones treated and GVII / ET - Estrogen - immediately treated (10μg/Kg/day). At the end of the experiment the animals were anesthetized by intraperitoneal injection and then was removed from the first pair of inguinal breasts, being immersed in 10% formaldehyde in phosphate buffer for subsequent morphometric and immunohistochemical analysis. The other fragments were immersed in acetone for biochemical determination of glycosaminoglycans. Results: 17β estradiol promoted greater stimulation of the mammary gland of rats and isoflavones promoted less regression of atrophy of the mammary tissue when compared to GII / GIII and CI / CT Groups. Regarding the morphometric parameters studied; epithelial fraction, fraction ductal and lobular fraction (%), the GVII / ET group was significantly increased in fractions and lobular epithelium compared to GII / CI, GIII / GIV CT and / ISOI, GVII / ET also showed fractions: ductal and lobular significantly higher than GIV / GV ISOI and / ISOT. By the electrophoresis method on agarose gel we observed a higher concentration of dermatan sulfate, heparan sulfate and hyaluronic acid in the groups GVII / ET and GVII and this difference was significant when compared GVII / ET to GII, GIII and GIV. Immunohistochemistry for hyaluronic acid demonstrated that GVII / ET showed higher immunostaining in the stroma of the connective tissue adjacent to the breast ducts compared to all other groups, and the same was observed in the immunostaining for Ki67 and VEGF. The method picrosirius red and polarization microscopy showed that among the treated animals, the GI / SHAM, GII / CI, GIII / CT and GVII / ET groups showed a greater amount of collagen type I in relation to groups GIV / GV ISOI and / ISOT, while in groups GVII / ET showed a greater amount of collagen type III. Conclusion: 17β estradiol promoted greater stimulation of the mammary gland in the immediate and late groups while isoflavones promoted less regression of atrophy of breast parenchyma in both immediate and lately groups.