Effect of the phytoestrogen bsitosterol on rats

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many institutes has been focusedupon certain materials extracted from plants that show an activitysimilar in many respects . to oestrogensand to which the termphytoestrogens is given, Serious breeding problems, such as infertility and other reproductive disorders. has been attributed to the presence of theseoestrogen like compounds incorporated in the food of farm animals, Oneof these prevailing plants is the Trifolium alexandrinum (Berseem) which is considered the most important localfood stuff for animals. B _ sitosterol is the most potent member of from berseem. Hence. thepresent experiments have been conducted in order to study the effect of B~sitosterolon the fertility of female rats. Some histologicalstudies were carried out to show the effectof maternal administration of different doses of B-sitosterol injectedsubcutaneously at different durations on the implantation of rats (between day six to day nine of pregnancy) and on the ovaries and uteri of mature female rats with a state of failure in implantation Also. the effect of B-sitosterol dose and time factor on the ovarian follicular distribution was also studied. Estimation of the FSH.LH.- Prolactin, oestrogen and progesterone were carried out in one of thegroups that failed to conceive under B-sitosterol treatment -In this study female albino rats were divided into four groups as follows : GulULl CbXL..fiC...1t ; It consisted of seven subgroups of intact, untreated, pregnant females. Animalswere killed at 12hr intervals beginning 129 h p.c. (day 6 at 10 a.m) to 201 h p.c. (day nine at 10 a.m) GJ:mULILUIDUJi~t..; It consisted of 3 subgroups of pregnant female rats which were treated Sic with 350 ug B-sitosterol in 1.0 olive oil fordifferent durations and their embryos at day 7 at 10 a.m (153 h p.c) and day 9 at 10 a.m (201 h p.c) were studied, 2I:muull...tIUl..llL.V-&The mature females in this group were assigned to 2 subgroups according to the duration of treatment. The animals in each subgroup were treated Sic. with different doses of B-sitosterol (50 ug, 100 ug, 250 ug and 350 ug in 1.0 olive oil.) for 7 and 30 days as a daily injection. After the end of each period, the animals were allowed to mate with normal males. The vaginalplug was not recorded and the uteri and ovaries were taken and prepared for histopathological examination.