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Cancer Prevention Research
The Forefront of Prevention Science
December 2013 • Volume 6 • Number 12

RESEARCH ARTICLES

OBITUARY

CORRECTION

AC icon indicates Author Choice

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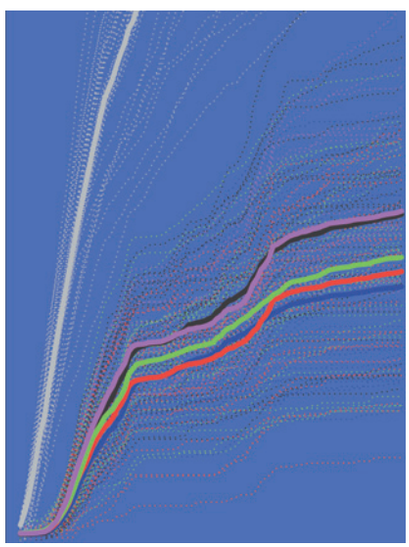
ABOUT THE COVER



Epidemiologic evidence suggests that progestins may be potent ovarian cancer preventives. Using the chicken ovarian cancer model, the primary objective of the present study was to prospectively evaluate progestins as reproductive tract cancer chemopreventives. A secondary objective assessed whether vitamin D would confer cancer protection either alone or in addition to progestin. Single Comb White Leghorns were randomized into six groups with hormonal and dietary manipulation for 2 years as follows: (i) no intervention, regular feed/caloric intake, (ii) control, (iii) vitamin D, (iv) the progestin levonorgestrel, (v) vitamin D plus levonorgestrel, and (vi) the progestin Provera (medroxyprogesterone acetate). Groups 26 were calorically restricted to inhibit ovulation. The results indicated caloric restriction decreased egg production by over 60% (cover image: cumulative production of eggs by treatment group; thick lines are the means for each treatment group) and was associated with a greater than 70% decrease in reproductive tract cancers. Ovulatory events did not differ among the caloric-restricted groups (groups 2–6), except for the group receiving levonorgestrel, which had fewer ovulatory events compared to controls ($P = 0.046$). After correcting for egg production, birds receiving progestins had significantly fewer reproductive tract cancers (odds ratio 0.61; CI 0.39–0.95, $P = 0.03$), with similar proportionate reductions in tumors arising in either the ovary or oviduct. Vitamin D did not significantly affect cancer incidence overall, or add to the cancer-preventive effect of progestins. This study suggests a protective effect of progestins against ovarian and oviductal cancers and supports the concept that progestins provide a chemopreventive effect unrelated to ovulation. See article by Rodriguez and colleagues (beginning on page 1283) for more information.