

Injectable Contraceptive Use Appears To Increase Breast Cancer Risk

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Depo-medroxyprogesterone acetate (DMPA) is an injectable progestin-only contraceptive used by approximately 10% of American women. DMPA contains the same form of progestin as the menopausal hormone therapy regimen associated with increased breast cancer risk in the Women's Health Initiative clinical trial; however few studies have examined its potential effect on breast cancer in younger women.

Dr. Christopher Li, Public Health Sciences Division, recently published the findings from the first U.S.-based study to examine the link between DMPA and breast cancer in premenopausal women. In a case-control study of 1,028 Seattle-area women (20-44 y) diagnosed with invasive breast cancer between 2004 and 2010, Li and colleagues found that recent use (within five years) for 12 months or longer was associated with a 2.2 fold (95% Confidence Interval (CI): 1.2-4.2) increased risk of invasive breast cancer compared to women who never used. Both the recency and duration of DMPA use appeared to be important factors as no elevation in risk was observed among women who last used DMPA more than 5 years before the study interview or who reported recent use for less than 12 months.

Li and colleagues also examined the relationship between DMPA use and breast cancer subtype. Although DMPA use was associated with a 3.3 fold increase (95% CI: 1.4-7.8) in risk for triple negative breast cancer, this was not significantly different from the risk estimate for ER positive breast cancer (Odds ratio: 2.2, 95% CI: 1.41-4.3). DMPA use was not significantly associated with any other particular clinical factor, molecular subtype or tumor histology.

Overall, this study supports previous evidence that exogenous progestin use, and specifically DMPA, has a promotional role in breast cancer. Given the number of available alternatives, the relative risks and benefits of specific formulations of hormonal contraception warrant consideration by women and their health care providers.

[Li CI, Beaber EF, Tang MT, Porter PL, Daling JR, Malone KE.](#) (2012). Effect of depo-medroxyprogesterone acetate on breast cancer risk among women 20-44 years of age. *Cancer Research*, doi:10.1158/0008-5472.CAN-11-4064



Photo by Dean Forbes

Dr. Chris Li
