

PREGNANCY OUTCOME AFTER TREATMENT FOR CANCER DURING CHILDHOOD OR ADOLESCENCE: A REPORT FROM THE CHILDHOOD CANCER SURVIVOR STUDY (CCSS)

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We reviewed pregnancy outcome among 12,459 sexually active CCSS participants who returned a questionnaire before 9/30/98. Eligibility for the CCSS included five year survivors who were less than 21 years of age at diagnosis and diagnosed with an eligible cancer between January 1, 1970 and December 31, 1986 at the 25 participating CCSS institutions. The questionnaire included items regarding sexual activity, attempts to become pregnant (sire a pregnancy), the occurrence of pregnancy, and the outcome of pregnancy (i.e., live birth, stillbirth, miscarriage, abortion). There were 6,564 males. The current age was 5 to 47 years (median: 23 years). Medical records of all members of the cohort were abstracted to obtain chemotherapeutic agents administered, the cumulative dose of drug administered for several drugs of interest, and the doses, volumes and dates of administration of all radiation therapy. One thousand one hundred fifty-one males reported they sired 2,177 pregnancies (72% live births, 1% stillbirths, 12% miscarriages, 13% abortions), and 1,827 females reported 3,840 pregnancies (64% live births, 1% stillbirths, 16% miscarriages, 18% abortions). There were no significant differences in pregnancy outcome by treatment for either gender. The rate of stillbirth or miscarriage was not increased among the partners of men whose gonads were not irradiated or who received no radiation therapy. The rate of miscarriage was not increased among women whose gonads were included in the radiation therapy field (RR = 1.85, p = 0.18), were near the radiation therapy field (RR = 1.60, p = 0.09) or were shielded (RR = 1.19, p = 0.81). The rate of live birth was not lower for the female patients or the partners of male patients treated with any particular chemotherapeutic agent. The rate of miscarriage for the partners of male patients treated with >5,000 mg/M² of procarbazine was higher than that of the partners of male patients treated with 0-5,000 mg/M² (RR = 2.37, p = 0.03) of procarbazine. The offspring of the male pts (RR = 1.88, p = 0.19) and female pts (RR = 1.97, p = 0.19) who received pelvic irradiation were not more likely to weigh less than 2,500 grams at birth. Overall, this large study did not identify adverse pregnancy outcomes for survivors treated with specific modalities. The association observed for procarbazine warrants further investigation.