#3982 PREGNANCY OUTCOME OF PARTNERS OF MALE SURVIVORS OF CHILDHOOD CANCER: A REPORT FROM THE CHILDHOOD CANCER SURVIVOR STUDY (CCSS)

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We evaluated pregnancy histories of sexually active male survivors of childhood cancer to determine the frequency of, and risk factors for, adverse pregnancy outcomes (PO). The study population is derived from the CCSS, a cohort of five-year survivors (diagnosed 1970-1986) from 25 centers in the U.S. and Canada. Medical records were abstracted for chemotherapy (agent, dose, route) and radiation therapy (fields, dose, and dates). Of the 6,749 participating males, 4,106 (61%) reported being sexually active and provided information regarding attempts to become pregnant (sire a pregnancy), the occurrence of pregnancy, and PO (i.e., live birth, stillbirth, miscarriage, abortion). As a control population, a random sample of siblings of CCSS subjects (N = 1,461) provided the same information. The median age of the sexually active males was 23 years, with 1,222 reporting that they had sired 2,346 pregnancies (69% live births, 1% stillbirths, 13% miscarriages, 13% abortions. The male:female ratio of the offspring of the partners of the male survivors was significantly different from that of the offspring of the partners of the male siblings of the survivors (1.0:1.03 versus 1.08:1.0) ($p = 0.02$). Analyses of PO and treatment-related factors (chemotherapy and/or radiation therapy) yielded only three significant associations: higher risk of not having a live birth if treated with CCNU (RR = 2.44, $p = 0.05$) or teniposide (RR = 2.0, $p= 0.05$), and increased risk of miscarriage if treated with > 5000 mg/square meter of procarbazine (RR = 2.11, $p = 0.04$). Overall, this large study did not identify radiation-associated effects for PO among the offspring of the partners of male survivors, and a limited number of associations with prior chemotherapy treatment. The observed reversal of the sex ratio of offspring requires further investigation.