Smoking and Risk of Childhood B-cell ALL

756 cases-1226 controls

Active Smoker	Timing		Exposed Cases	Exposed Controls	OR	95% CI
Father[1]	Pre-conception	(yes/no)	200	273	1.19	0.95-1.48
		(#CPD)	---	---	1.02*	1.00-1.03
Mother[2]	Pre-conception	(yes/no)	102	149	0.67	0.39-1.15
		(#CPD)	---	---	1.02	0.98-1.07
	Pregnancy	(yes/no)	72	97	1.21	0.71-2.07
		(#CPD)	---	---	0.97	0.91-1.04
Any[3]	After birth	(yes/no)	174	205	1.29*	1.02-1.64

CPD: Cigarettes Per Day; ORs adjusted for child's age, sex, Hispanic status, maternal race, and annual household income. [1]n=691 ALL due to delay in collecting data; [2]OR adjusted for postnatal maternal smoking and birth weight; [3]Include mother, father, or others.

☞ **No increased risk observed for T-cell ALL (n=76)**

Results by Major Cytogenetic Subtype of Childhood B-cell ALL

Smoker	Timing	t(12:21) n=133		Hyperdiploidy n=228	
		OR	95% CI	OR	95% CI
Father[1]	Pre-conception (yes/no)	1.41	0.92-2.16	0.94	0.66-1.34
	(#CPD)	1.03*	1.01-1.06	1.00	0.98-1.03
Mother[2]	Pre-conception (yes/no)	0.63	0.23-1.77	0.69	0.30-1.57
	(#CPD)	1.00	0.91-1.11	1.04	0.98-1.10
	Pregnancy (yes/no)	1.54	0.60-3.93	1.09	0.47-2.51
	(#CPD)	0.95	0.85-1.05	0.96	0.87-1.06
Any[3]	After birth (yes/no)	1.96*	1.28-3.00	0.97	0.66-1.42

CPD: Cigarettes Per Day; ORs adjusted for child's age, sex, Hispanic status, maternal race, and annual household income. [1]Delay in collecting data; [2]OR adjusted for postnatal maternal smoking and birth weight; [3]Include mother, father, or others.

Joint Effect of Smoking on Risk of B-cell ALL

Smoking exposure			
Father preconception	Any smoker, after birth	Cases/Controls	OR* (95% CI)
No	No	443/830	Reference
No	Yes	93/160	0.96 (0.72-1.28)
Yes	No	44/88	0.84 (0.57-1.23)
Yes	**Yes**	**103/109**	**1.45 (1.07-1.97)****

*ORs adjusted for child's age, sex, Hispanic status, maternal race, and annual household income; **P-value for interaction=0.017

☞ **Same observation for B-Cell ALL with t(12;21)**

Child's Passive Smoking and Risk of Childhood AML

	Exposed Cases	Exposed Controls	OR	95% CI
AML, total (n=145)	42	205	1.49	0.98-2.26
AML, "good prognosis"[1] (n=40)	14	205	1.94	0.94-3.99
AML, other cytogenetic changes (n=75)	20	205	1.24	0.70-2.19

ORs adjusted for child's age, sex, Hispanic status, maternal race, and annual household income.
[1]Any translocation involving chromosome 21, t(15;17) or inversion (16)