

Table 2.12. Case-control studies of Epstein-Barr virus infection markers and breast cancer

Reference, study location and period	Characteristics of cases	Characteristics of controls	Detection method	Exposure categories	No. of exposed cases	Relative risk (95% CI)	Adjusted potential confounders	Comments
Yasui <i>et al.</i> (2001) USA 1988–1990	537 incident cases of histologically confirmed breast cancer (87 <i>in situ</i> and 450 invasive)	492 white women aged 50–64 years randomly selected from study area	History of infectious mononucleosis obtained by interview questionnaire	Age (years) at first infectious mononucleosis	503	1.0	Age, family history of breast cancer, number of full-term pregnancies, age at first full-term pregnancy, body mass index, age at menarche, use of hormone replacement therapy, cumulative duration oral contraceptive use, alcohol consumption	The distribution of age (years) at first infectious mononucleosis for controls were 469 (never), 2 (0–9), 9 (10–19), 6 (20–24), and 6 (≥25)
Richardson <i>et al.</i> (2004) Australia 1992–1995	208 incident cases (<40 years) of histologically confirmed invasive breast cancer	169 controls randomly selected from the study area. They were matched with cases on age.	Anti-EBV VCA IgG by enzyme immunoassay	Anti-EBV VCA	7 201	1.0 1.1 (0.3–3.7)	Age, education, country of birth, state, marital status, body mass index, height, age at menarche, number of live births, ever use of oral contraceptives, history of breast cancer in first-degree relatives	162 of 169 controls were EBV positive
Tsai <i>et al.</i> (2005) Taiwan 1999–2003	69 cases of histologically confirmed invasive ductal breast cancer	32 controls affected with breast fibroadenoma	EBV DNA in tissue by PCR and southern hybridization (62 cases)	EBV DNA	34 28	1.0 0.8 [0.4–1.9]	No	Characteristics of controls were unavailable. Half of controls (16/32) were EBV positive.