

**Table 2.8. Case–control studies of HPV and VIN II/III or ISC cancer**

Reference, study location	Sites included	No. of cases	No. of controls	Method <sup>a</sup> of detection	HPV prevalence (%)		Odds ratio (95% CI)	Comments
					Cases	Controls		
Sun <i>et al.</i> (1996), USA	Sera	22	44	HPV16 L1/L2 VLP ELISA & HPV16 E6 and E7 RIPA.	N=13 (59.1) HPV16 VLP cut off point 0.24	N=44 (18.2%) HPV16 VLP cut off point 0.24	5.4 (1.7–18)	Sera
					N=1 (4.6%) HPV16 E6 cut off point 5484	N=2 (4.6%) HPV16 E6 cut off point 5484	1.3 (0.10–16)	
					N=2 (9.1%) HPV16 E7 cut off point 4010	N=0 (0%) HPV16 E7 cut off point 4010	–	
					N=3 (13.6%) HPV16 E6 or E7	N=2 (4.6%) HPV16 E6 or E7	2.8 (0.39–20)	
					N=0 (0%) HPV16 E6 and E7	N=0 (0%) HPV16 E6 and E7	–	
Kagie <i>et al.</i> (1997), The Netherlands	Normal vulvar tissue used as controls	27	55	CPI and CPIIG and sequencing	N=11 (40.7%)	N=2 (3.6%)	18.22 (3.65–90.88)	Formalin-fixed paraffin-embedded tissue samples.
Bjørge <i>et al.</i> (1997), Norway and Finland	8 vulvar and vagina cancer sera of patients from Finland, 17 vulvar and vagina cancer sera of patients from Norway, 73 sera controls.	10	30	Seropositivity to HPV by ELISA (Baculovirus expressed capsids comprising both L1 and L2 proteins)	N=7 (70%) HPV16 cut off point 0.239	N=1 (3%) HPV16 cut off point 0.239	∞ (3.8–∞)	Sera
					N=7 (70%) HPV16 cut off point 0.100	N=5 (17%) HPV16 cut off point 0.100	7.8 (1.4–80)	
					N=4 (40%) HPV18 cut off point 0.100	N=1 (3%) HPV18	12 (1.2–590)	
					N=3 (30%) HPV33 cut off point 0.100	N=2 (7%) HPV33	4.5 (0.5–54)	
					N=7 (70%) HPV16 or 18 or 33	N=4 (13%) HPV16 or 18 or 33	15 (1.9–710)	
Hildesheim <i>et al.</i> (1997), USA	Sera	65	63	Seropositivity to HPV16 capsid proteins by ELISA (L1 and L2)	N=39 (60%)	N=8 (12.7%)	13.4 (3.9–46.5)	Sera
Madeleine <i>et al.</i> (1997) USA	Sera	400	1403	Seropositivity to HPV6, HPV16 and HPV18 capsid proteins by ELISA (L1)	N=145/272 (53.3%) HPV16 L1 Ab	N=229/1031 (22.2%) HPV16 L1 Ab	3.6 (2.6–4.8)	Sera
					N=96/191 (50.3%) HPV6 L1 Ab	N=215/604 (35.6%) HPV6 L1 Ab	1.2 (0.8–1.7)	

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Carter <i>et al.</i> (2001), USA	Sera	436	1539	Seropositivity to HPV16 and HPV18 capsid proteins by ELISA (L1)	N=37/290 (12.8%) HPV18 L1 Ab	N=108/1088 (9.9%) HPV18 L1 Ab	0.9 (0.6–1.5)	Sera
					N=197/436 (45.2%) HPV16 L1 Ab	N=225/1539 (14.6%) HPV16 L1 Ab	4.8 (3.6–6.0)	
					N=59/135 (43.7%) HPV16 L1 Ab + HPV16 DNA +	N=225/1539 (14.6%) HPV16 L1 Ab + HPV16 DNA +	4.5 (3.1–6.4)	
					N=112/435 (25.8%) HPV18 L1 Ab	N=216/1532 (14.1%) HPV18 L1 Ab	2.1 (1.6–2.7)	
					N=4/12 (33.3%) HPV18 L1 Ab + HPV18 DNA +	N=216/1532 (14.1%) HPV18 L1 Ab + HPV18 DNA +	3.0 (0.9–10.2)	