

Table 2.15. Case-control studies of HPV and penile cancer and penile intraepithelial neoplasia

Reference, Study location	No. of cases	No. of controls	Method of detection and types tested	Histology	HPV Prevalence N (%)		Odds Ratio (95% CI)	Comments / Adjustments
					Cases	Controls		
Carter <i>et al.</i> (2001) USA ^a	69	579	HPV Serology	In situ	14(20.3)	73(12.6)	1.8 (0.9–3.4)	Stratified by extent of disease
	52			SCC	15(28.5)	73(12.6)	2.9 (1.5–5.6)	
	69		HPV-16 DNA pos. Cases	In situ	5(33.3)	–	3.4 (1.1–10.3)	
	52			SCC	5(62.5)	–	11.6 (2.7–49.4)	
Björge <i>et al.</i> (1997) Finland Norway	16	48	HPV-16 Serology Cut off point 0.239	Unspecified	3(19)	2(4)	7.2 (0.5–390)	
					HPV-16 Serology Cut off point 0.100	4(25)	2(4)	10 (1–510)
					HPV-18 Serology Cut off point 0.100	1(6)	4(8)	0.7 (0–7.6)
					HPV-33 Serology Cut off point 0.100	3(19)	2(4)	7.2 (0.5–390)
Newton <i>et al.</i> (2004) Uganda	15		HPV serology 16,18 and 45		6(46)	105(17)	5.0 (1.4–17.2)	
					HPV serology 16	4(27)		6.4 (1.7–24.3)
					HPV serology 18	1(8)		1.7 (0.2–15)
					HPV serology 45	2(15)		2.8 (0.5–17)
Van Doornum <i>et al.</i> (2003) The Netherlands	122	100	HPV 16 L1 serology	Unspecified	46 (38)	18 (18)	2.72 (1.5–4.9)	

Table 2.15. Case-control studies of HPV and penile cancer and penile intraepithelial neoplasia

Reference, Study location	No. of cases	No. of controls	Method of detection and types tested	Histology	HPV Prevalence N (%)		Odds Ratio (95% CI)	Comments / Adjustments
					Cases	Controls		
Heideman <i>et al.</i> (2007) The Netherlands	83	83	Serology against HPV L1/E6/E7 antigens of the following HPV types: 1L1; 2L1; 3L1; 5L1; 6L1; 8L1/E6/E7; 9L1/E6/E7; 10L1; 11L1; 15L1/E7; 16L1/E6/E7; 18L1/E6/E7; 20L1; 24L1; 31E6; 32L1; 33E6/E7; 35E6; 36L1; 38L1/E6/E7; 45E6; 52E6/E7 and 58E6/E7					
			Any HPV type					
			L1 seropositive	Unspecified	73 (88.0%)	50 (60.0%)	6.7 (2.4–19)	
			E6 and/or E7 seropositive		42 (51.0%)	19 (23.0%)	11 (3.6–34)	
			Any mucosal High-Risk type					
			L1 seropositive	Unspecified	32 (39.0%)	5 (6.0%)	13 (4.7–38)	
			E6 and/or E7 seropositive		34 (41.0%)	14 (17.0%)	4.9 (2.3–11)	
			Any mucosal Low-risk Type					
			L1 seropositive	Unspecified	58 (70.0%)	31 (37.0%)	3.8 (2–7.3)	
			Any cutaneous HPV type					
			L1 seropositive	Unspecified	56 (67.0%)	37 (45.0%)	3.0 (1.5–5.8)	
			E6 and/or E7 seropositive		15 (18.0%)	7 (8.0%)	4.4 (1.6–13)	
			Any antigen against specific HPV types^b					
			HPV 16	Unspecified	38 (46.0%)	11 (13.0%)	5.0 (1.9–13)	
			HPV 18		22 (27%)	4 (5.0%)	5.3 (1.3–21)	

^a It includes cases from Dailing JR et al Int J Cancer: 116, 606-616 (2005)

^b Seropositivity to any antigen of a specific HPV type was calculated for those types of which L1 and E6 and/or E7 antibodies were evaluated (ie, cutaneous types 8,9,15 and 38 and mucosal types 16,18,33,52 and 58.