Table 2.18. Case–control studies of consumption of alcoholic beverages and cancer of the liver

Reference, study location and period	Characteristics of cases	Characteristics of controls	Exposure assessment	Exposure categories	Exposed cases	Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Hassan *et al*. (2008) Texas, USA 2000–2006	319 cases with newly diagnosed hepatocellular carcinoma from the University of Texas, M-D. Anderson Cancer Center	1061 healthy control subjects of patients with cancers other than liver, gastrointestinal, lung or head and neck (smoking-related cancers).	Interview by well trained interviewers.	Alcohol drinking			Age, sex, race, education, marital status, state of residence, HCV, HBV, diabetis, cigarette smoking, and family history of cancer	After adjustment for the effect of demographic characteristics and other significant risk factors for HCC, there was synergy between cigarette smoking and heavy alcohol consumption in women. The interaction fit the assumption of additive scale.
				No	144	1.0		
				Yes	205	1.8(1.1 – 3.2)		
						Men		
				No	58	1.0		
				Yes	167	0.9(0.5 – 1.4)		
						Women		
				No	56	1.0		
				Yes	38	1.9(1.1 – 3.4)		
				Ethanol consumption				
				< 60 ml/day	134	1.1(0.7 – 1.5)		
				≥ 60 ml/day	69	2.7(1.5 – 4.7)		
						Men		
				< 60 ml/day	106	0.7(0.4 – 1.2)		
				≥ 60 ml/day	59	1.8(1.1 – 3.4)		
						Women		
				< 60 ml/day	28	1.5(0.8 – 2.9)		
				≥ 60 ml/day	10	7.7(2.3 – 25.1)		

DRAFT

Table 2.18. Case–control studies of consumption of alcoholic beverages and cancer of the liver

Reference, study location and period	Characteristics of cases	Characteristics of controls	Exposure assessment	Exposure categories	Exposed cases	Relative risk (95% CI)*	Adjustment for potential confounders	Comments
Zaridze *et al*. (2009) 3 cities the Russian Federation 1990–2001	364 deaths with cancer of the liver (C22) (238 men, 126 women) identified from death certificates (among 60 416 decedents aged 15–74 years in 1990–2001)	5475 decedents not judged to be due to alcohol or tobacco	Face-to face interview with relatives (blood or in-law) during 2001–05	*Usual Vodka intake (0.5L bottles/week)* *Men* < 0.5 reference 0.5–0.9 1–3 ≥ 3 Women < 0.5 reference 0.5–0.9 1–3 ≥ 3	 *Men* 27 73 75 63 Women 80 28 11 7	 1.0 1.01 (0.79–1.28) 1.28 (1.01–1.63) 2.11 (1.64–2.70) *P* < 0.001 trend of drinkers 1.0 1.52 (1.20–1.92) 1.17(0.82–1.68) 1.57 (1.01–2.43) *P* = 0.42 trend of drinkers	Age, city, smoking	Number of cancer deaths refer to ever-drinkers only; reference group includes ever-drinkers only and women with a usual intake of < 0.5 bottles of vodka (or equivalent) and maximum intake of < 0.5 bottles/day; this population has unusually high alcohol intake (moderate alcohol intake is within the reference category)
Benedetti *et al*. (2009), Canada, 1980s	28 cases of hepatocellular cancer identified through regional hospitals; all men; aged 35–70 years old; all histologically confirmed; response rate ~82% (for all cancer sites combined)	507 population-based (randomly selected from electoral roll); stratified by age and area to all cancers combined; response rate 72%	Interview or selfadmini-stered questionnaire with case or proxy	*Frequency of drinking (weekly)* Never 1–6 ≥ 7 *Alcohol intake in regular drinkers (drink-years)* Never weekly 0–71 72–179 ≥ 180 P-trend	 4 6 18 4 4 4 10	 1.0 1.29 (035–4.76) 3.10 (0.98–9.77) 1.0 1.54 (0.36–6.50) 2.14 (0.50–9.23) 7.92 (2.23–28.12) *0.005*	Age, smoking, respondent status, race, income, education, time since quitting.	Information from proxies derived from ~39% of cases; No significant different between total intake and intake of beer, wine or spirits

DRAFT