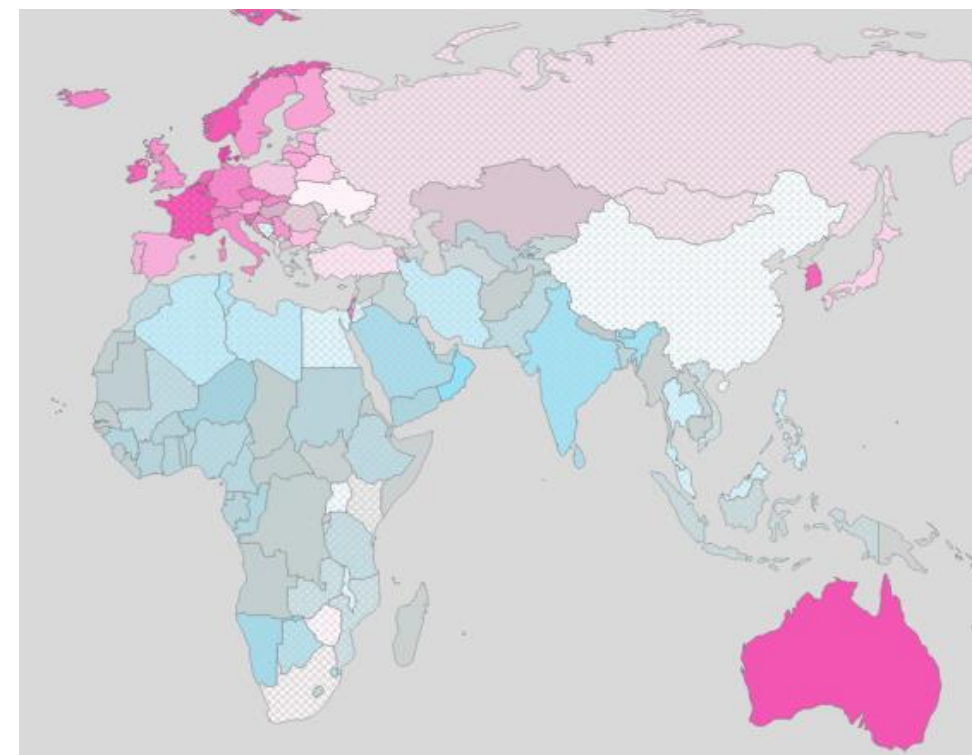


Menstrual and Reproductive Factors and Risk of Pancreatic Cancer in Women.

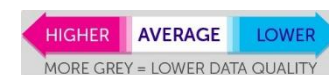
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Introduction: Pancreatic cancer (PC) is a deadly disease with a 5-year survival of less than 5%. Worldwide PC incidence rates are lower among women than men. While this suggests a protective role for steroid hormones in PC risk, results from epidemiologic studies are not consistent.



PC incidence, 2012 Estimates



Methods: Odds ratios and 95% confidence intervals for reproductive factors and PC were estimated using Logistic regression methods in a prospective case-control study. A total of 153 new incident PC cases and 202 controls were both recruited in the study from a referral center for endoscopic ultrasound between 2011 and 2016. A structured valid and reliable questionnaire was used for data collection by trained interviewers.

Results: Mean age (SD) of cases and controls were 63.2 (11.4) and 63.4 (12.0) years respectively. Age at menarche, age at menopause, number of parity, gravidity and abortion were not associated with PC risk.

Conclusions: This study does not support for the hypothesis that menstrual and reproductive factors are associated to PC risk.

Table 1: Comparison of Case-Control Status Based on Age, Diabetes-Related Conditions, BMI and Cigarette Smoking.

Characteristics	Case		Control		
	N=153	N=202	P	Crude-OR (CI 95%)	
Age at diagnosis (Mean±SD)	63.18±11.44	63.37±12.08	0.885	0.99(0.98-1.01)	
BMI (N (%))	Normal	37 (24.18%)	81(40.10%)	1.00	
	Overweight	38 (24.83%)	76(37.62%)	<0.001	1.09(0.63-1.89)
	Obese	78 (50.99%)	45(22.28%)		3.79(2.22-6.47)
Diabetes (N (%))	No	114 (74.51%)	168 (83.17%)	1.00	
	Yes, diagnosed 2+ years ago	39 (25.49%)	34 (16.83%)	0.046	2.04(1.25-3.32)
Cigarette Smoking (N (%))	Never	143 (93.46%)	184 (91.9%)	1.00	
	Ever	10 (6.54%)	18 (8.91%)	0.883	1.06(0.45-2.46)
Opium (N (%))	Never	152 (99.35%)	198 (98.02%)	1.00	
	Ever	1 (0.65%)	4 (1.98%)	-†	-†
Alcohol (N (%))	No	152 (99.35%)	202 (100%)	1.00	
	Yes	1 (0.65%)	0 (0.00%)	-†	-†

† Not calculable

Table 2: Comparison of Case-Control Status According to Reproductive Factors (Adjusted for smoking status, BMI and diabetes)

Reproductive Characteristics	Case		Control		P	Crude-OR (CI 95%)	Adj-OR (CI 95%)
	N=153	N=202	N=153	N=202			
Gravidity (Mean±SD)	6.33±3.48	6.35±3.36	6.33±3.48	6.35±3.36	0.919	0.99(0.93-1.05)	0.91(0.64-1.30)
Live Birth (Mean±SD)	5.47±2.97	5.47±2.86	5.47±2.97	5.47±2.86	0.998	1.00(0.93-1.07)	1.09(0.76-1.58)
Age at menarche (Mean±SD)	13.32±1.27	13.23±1.21	13.32±1.27	13.23±1.21	0.509	1.05(0.89-1.25)	1.05(0.88-1.26)
Age at menopause (Mean±SD)	57.43±19.23	55.23±16.36	57.43±19.23	55.23±16.36	0.231	1.00(0.99-1.01)	1.00(0.99-1.01)
Abortion (N (%))	0	80 (52.29%)	101 (50.00%)			1.00	1.00
	1	36 (23.53%)	55 (27.23%)	0.810	0.84(0.51-1.41)	0.91(0.48-1.73)	
	2+	37(24.18%)	46 (22.77%)		0.98(0.58-1.67)	1.14(0.37-3.50)	
Sterility History (N (%))	No	149 (97.38%)	194 (96.04%)		1.00	1.00	
	Yes	4 (2.61%)	8 (3.96%)	0.568	1.53(0.45-5.19)	1.76(0.48-6.45)	
OC Used (N (%))	No	119 (77.78%)	156 (77.20%)		1.00	1.00	
	Yes	34 (22.22%)	46 (22.80%)	0.902	0.97(0.58-1.61)	1.07(0.62-1.84)	