

ALCOHOL USE AND TOBACCO SMOKING IN RELATION TO OVARIAN RESPONSE AMONG EGG DONORS

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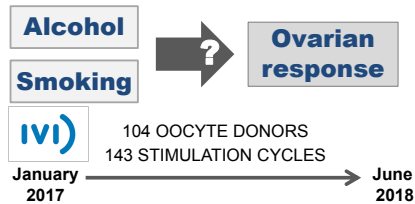
INTRODUCTION

Alcohol intake and tobacco smoking are widely believed to be associated with lower fecundity rates, adverse reproductive outcomes and a higher risk of IVF failures. However, the influence of alcohol use on ovarian response among egg donors is unclear.

OBJECTIVES

To evaluate the associations of **alcohol intake and tobacco smoking** and markers of **ovarian response to hyperstimulation** among young, healthy egg donors.

METHODS



Statistical Analysis

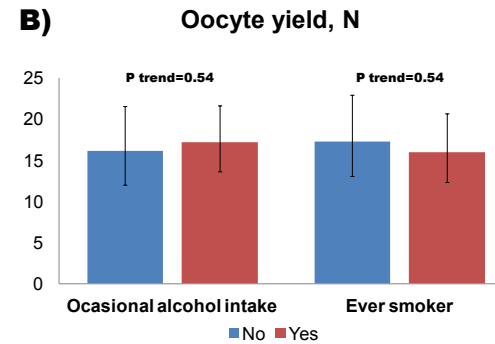
Linear (E2) and Poisson (oocyte yield, MII) mixed regression models with random intercepts to account for repeated observations and adjusted for:

- Age at egg donation, years
- Body Mass Index, kg/m
- Coffee intake (servings/w)
- Self reported exposure to second hand smoke
- Sleep time, hrs/day
- Nap time, mins/day
- Leisure time vigorous/moderate physical activities, h/week
- Sedentary behaviour h/week

RESULTS

TABLE 1. Descriptive characteristic for 104 egg donors from IVI clinic-Murcia (Spain)

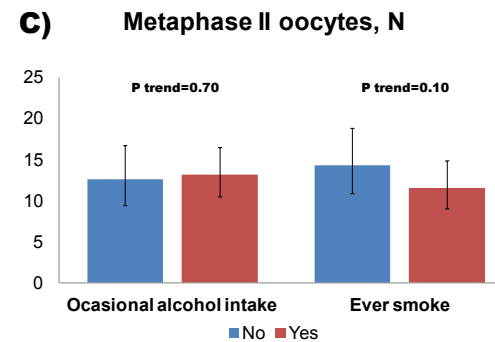
	Occasional Alcohol Intake		Ever Smoking	
	No (N=36)	Yes (N=68)	No (38)	Yes (66)
Demographic characteristics				
Age at egg donation, years	24.4 (4.06)	23.8 (3.98)	24.0 (3.97)	24.0 (4.05)
Body Mass Index, kg/m ²	22.7 (3.50)	22.0 (2.59)	22.4 (3.11)	22.1 (2.86)
Sleep time/day, hrs *	7.5 (2.8)	7.9 (1.7)	8.0(2.1)	7.7 (2.1)
Nap time/day, mins *	25.0 (30.5)	33.2 (47.3)	21.92 (22.81)	35.1 (49.7)
Coffee intake, servings/w *	4.53 (9.07)	4.80(6.13)	2.59 (3.94)	5.78 (8.18)
Occasional alcohol intake, N (%)	–	–	23 (22.1)	45 (43.3)
Ever Smoker, N (%)	21 (20.2)	45 (43.3)	–	–
Self reported exposure to second hand smoke, N (%)*	13 (12.5)	18 (17.31)	6 (5.57)	25 (24.04)
Leisure Moderate/vigorous activity, h/w *	1.46 (2.68)	2.19 (4.66)	2.59(4.85)	1.53 (3.52)
Sedentary behavior, h/w *	22.2 (17.5)	29.1 (24.1)	31.0 (18.9)	24.4 (24.0)
Contraceptive use, N (%)	7 (6.73)	10 (9.62)	5 (4.81)	12 (11.54)
First cycle characteristics				
Total dosis FSH, IU/L	1715 (332.4)	1494 (471.6)	1604 (428.4)	1551(448.3)
Number of Estimulation days, N	9.72 (1.43)	9.59 (1.11)	9.61 (0.97)	9.65 (1.35)
Oocyte Fate, N(%)*				
- Fresh transfer	20 (19.2)	37(35.6)	20 (19.2)	37 (35.6)
- Vitrified	3(2.88)	4 (3.85)	3 (2.88)	4 (3.85)
- Mixed	13 (12.5)	25 (24.0)	14 (13.46)	24 (23.08)
Oocyte yield, N	18	19	18	18
Metaphase II oocytes, N	13	13	14	12
Peak Estradiol. mg/dL	1718	1556	1586	1625



✓ A total of 104 donors, with a mean age of 24 years and BMI of 22 kg/m², were recruited into the study.

✓ Most women (66%) reported smoking and moderate (1-2 times/week) (68%) alcohol use in the past year.

✓ Peak E2, total oocyte yield and yield of MII oocytes, did not differ according to alcohol consumption or Tobacco smoking.



CONCLUSION

Alcohol and tobacco consumption in the year prior to the stimulation cycle are unrelated to markers of ovarian response to stimulation

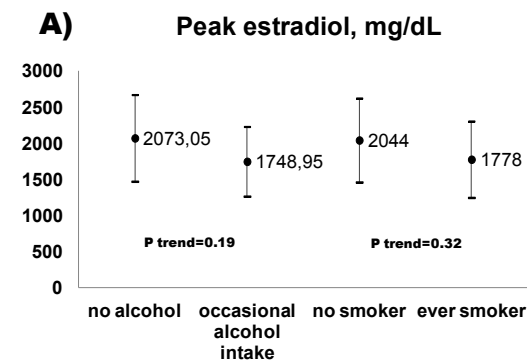


Figure 1 - Linear regression models of peak E2 levels (A) and Poisson regression models of oocyte yield (B), yield of MII oocytes (C) and alcohol / smoking consumption.

ACKNOWLEDGMENTS

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