

TITLE: Alcohol and smoking cessation as potential modulators for smoking-associated psoriasis risk in postmenopausal women: the Women's Health Initiative

Authors: Wendy Li, MD^{1*}, Alfred A. Chan, BS^{2*}, Jiali Han, PhD³, Rowan T Chlebowski, MD, PhD², Delphine J. Lee, MD, PhD^{1, 2, 4}

American Journal of Clinical Dermatology, 2022

Supplemental Table 1: Baseline characteristics by alcohol consumption habits

| | | Non- Drinker | Past Drinker | <1 Drink/Mont h | <1 Drink/Wee k | 1 to 6 Drinks/Week | >= 7 Drinks/Week |
|-----------------------|------------------------------|--|-------------------------|-----------------------------------|----------------------------------|-------------------------------|--------------------------------|
| Age | <60 | 176 (14.0%) | 503 (40.1%) | 175 (14.0%) | 207 (16.5%) | 138 (11.0%) | 55 (4.4%) |
| | 60 - 64 | 444 (11.5%) | 875 (22.8%) | 493 (12.8%) | 794 (20.7%) | 870 (22.6%) | 369 (9.6%) |
| | 65 - 69 | 7713 (10.5%) | 12700 (17.2%) | 9396 (12.7%) | 15005 (20.4%) | 20038 (27.2%) | 8849 (12.0%) |
| | 70 - 74 | 2350 (12.9%) | 3608 (19.8%) | 2073 (11.4%) | 3606 (19.8%) | 4370 (24.0%) | 2231 (12.2%) |
| | 75 - 80 | 1207 (14.8%) | 1738 (21.3%) | 867 (10.6%) | 1620 (19.8%) | 1834 (22.5%) | 902 (11.0%) |
| | >80 | 212 (12.9%) | 340 (20.8%) | 196 (12.0%) | 323 (19.7%) | 381 (23.3%) | 186 (11.4%) |
| Race/Ethnicity | Caucasian | 8902 (9.7%) | 17359 (18.9%) | 11051 (12.1%) | 17034 (18.6%) | 25281 (27.6%) | 12043 (13.1%) |
| | Asian or Pacific Islander | 982 (40.7%) | 537 (22.2%) | 340 (14.1%) | 279 (11.6%) | 219 (9.1%) | 57 (2.4%) |
| | Black or African American | 1653 (18.4%) | 3342 (37.2%) | 1172 (13.0%) | 1287 (14.3%) | 1171 (13.0%) | 357 (4.0%) |
| | Hispanic or Latino | 685 (22.0%) | 820 (26.3%) | 423 (13.6%) | 509 (16.3%) | 529 (17.0%) | 151 (4.8%) |
| | Other/Unspecified | 247 (16.6%) | 393 (26.5%) | 187 (12.6%) | 238 (16.0%) | 298 (20.1%) | 122 (8.2%) |
| | Education | High School of Less School After High School | 1201 (24.7%) | 1843 (38.0%) | 563 (11.6%) | 538 (11.1%) | 525 (10.8%) |
| College Degree | | 4042 (9.8%) | 8193 (19.8%) | 5093 (12.3%) | 7550 (18.2%) | 11090 (26.8%) | 5403 (13.1%) |
| College Degree | | 4435 (15.3%) | 7280 (25.0%) | 4062 (14.0%) | 4967 (17.1%) | 5921 (20.4%) | 2401 (8.3%) |

| | | | | | | | |
|---------------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|---------------|--------------|
| Occupation | Graduate Degree | 2739 (8.5%) | 5074 (15.8%) | 3426 (10.7%) | 6246 (19.5%) | 9873 (30.8%) | 4705 (14.7%) |
| | Managerial/Professional | 3812 (8.8%) | 7440 (17.2%) | 4917 (11.4%) | 8315 (19.2%) | 12730 (29.5%) | 5997 (13.9%) |
| | Technical/Sales/Admin | 3165 (10.9%) | 6353 (21.9%) | 3965 (13.7%) | 5401 (18.6%) | 7013 (24.2%) | 3104 (10.7%) |
| | Service/Labor | 2671 (15.9%) | 4490 (26.8%) | 2162 (12.9%) | 2550 (15.2%) | 3384 (20.2%) | 1507 (9.0%) |
| | Homemaker Only | 1632 (16.0%) | 2253 (22.2%) | 1083 (10.6%) | 1566 (15.4%) | 2356 (23.2%) | 1280 (12.6%) |
| Income | <20k - 35k | 2934 (19.2%) | 5067 (33.2%) | 2024 (13.3%) | 2154 (14.1%) | 2222 (14.6%) | 861 (5.6%) |
| | 35 - 50k | 3159 (13.2%) | 5976 (24.9%) | 3258 (13.6%) | 4265 (17.8%) | 5227 (21.8%) | 2127 (8.9%) |
| | 50 - 75k | 2283 (10.9%) | 4074 (19.5%) | 2805 (13.4%) | 3969 (19.0%) | 5418 (25.9%) | 2364 (11.3%) |
| | 75 - 100k | 1940 (9.4%) | 3417 (16.5%) | 2510 (12.1%) | 4055 (19.6%) | 5901 (28.5%) | 2876 (13.9%) |
| | >100k | 668 (6.9%) | 1337 (13.9%) | 1032 (10.7%) | 1872 (19.4%) | 3154 (32.7%) | 1582 (16.4%) |
| Body Mass Index | Normal (18.5 - 24.9) | 3622 (10.3%) | 5910 (16.8%) | 3370 (9.6%) | 5953 (16.9%) | 10666 (30.2%) | 5752 (16.3%) |
| | Overweight (25 - 29.9) | 4087 (11.2%) | 7222 (19.8%) | 4248 (11.7%) | 6828 (18.7%) | 9733 (26.7%) | 4322 (11.9%) |
| | Obese (30+) | 4228 (13.4%) | 8431 (26.8%) | 4999 (15.9%) | 5738 (18.2%) | 5957 (18.9%) | 2099 (6.7%) |
| Waist to Hip Ratio | Normal (<0.8) | 5525 (10.9%) | 8967 (17.7%) | 5741 (11.3%) | 9375 (18.5%) | 14744 (29.0%) | 6416 (12.6%) |
| | Overweight (0.8 - 0.85) | 3111 (11.8%) | 5552 (21.1%) | 3224 (12.3%) | 4784 (18.2%) | 6434 (24.5%) | 3157 (12.0%) |
| | Obese (>0.85) | 3640 (12.6%) | 7570 (26.2%) | 3991 (13.8%) | 4856 (16.8%) | 5898 (20.4%) | 2944 (10.2%) |

| | | | | | | | |
|---|--------------|------------------|------------------|------------------|------------------|---------------|---------------|
| Hx of Hysterectomy | No | 6676 (10.7%) | 11756 (18.8%) | 7503 (12.0%) | 11407 (18.2%) | 17080 (27.3%) | 8140 (13.0%) |
| | Yes | 5819 (12.8%) | 10748 (23.7%) | 5689 (12.6%) | 7968 (17.6%) | 10459 (23.1%) | 4608 (10.2%) |
| Physical Activity (MET-hour) | 0 | 1134 (14.6%) | 2078 (26.7%) | 1138 (14.6%) | 1297 (16.7%) | 1386 (17.8%) | 747 (9.6%) |
| | ≤3.5 | 986 (13.3%) | 1860 (25.2%) | 897 (12.1%) | 1324 (17.9%) | 1579 (21.4%) | 741 (10.0%) |
| | >3.5 - ≥7 | 948 (12.8%) | 1537 (20.8%) | 920 (12.5%) | 1287 (17.4%) | 1831 (24.8%) | 865 (11.7%) |
| | >7 | 3162 (9.6%) | 5781 (17.5%) | 3316 (10.1%) | 5932 (18.0%) | 9780 (29.6%) | 5017 (15.2%) |
| Smoking (Pack years) | Never Smoker | 10641 (19.5%) | 10479 (19.2%) | 7357 (13.5%) | 10095 (18.5%) | 12052 (22.1%) | 3901 (7.2%) |
| | <5 | 41 (4.0%) | 168 (16.4%) | 117 (11.4%) | 185 (18.1%) | 339 (33.1%) | 174 (17.0%) |
| | 5 - <20 | 98 (5.9%) | 368 (22.0%) | 243 (14.5%) | 291 (17.4%) | 423 (25.3%) | 250 (14.9%) |
| | ≥ 20 | 147 (3.4%) | 1000 (23.5%) | 626 (14.7%) | 734 (17.2%) | 953 (22.4%) | 802 (18.8%) |
| Hx of Diabetes | No | 11367 (11.2%) | 19948 (19.6%) | 12379 (12.2%) | 18632 (18.3%) | 26930 (26.5%) | 12532 (12.3%) |
| | Yes | 1122 (18.5%) | 2548 (42.1%) | 809 (13.4%) | 746 (12.3%) | 617 (10.2%) | 213 (3.5%) |
| Hx of Hypertension | No | 7628 (10.7%) | 13005 (18.3%) | 8638 (12.1%) | 13203 (18.5%) | 19751 (27.7%) | 8975 (12.6%) |
| | Yes | 4782 (13.3%) | 9285 (25.8%) | 4469 (12.4%) | 6071 (16.9%) | 7654 (21.3%) | 3720 (10.3%) |
| Hx of Cardiovascular Disease | No | 9475 (11.4%) | 16415 (19.7%) | 10297 (12.2%) | 15129 (18.1%) | 21954 (26.3%) | 10236 (12.3%) |
| | Yes | 2236 (12.2%) | 4735 (25.8%) | 2333 (12.4%) | 3116 (17.0%) | 4082 (22.3%) | 1880 (10.2%) |

| | | | | | | | |
|---------------------------------|---------|------------------|------------------|------------------|------------------|---------------|---------------|
| Hx of Liver Disease | No | 12160 (11.5%) | 21889 (20.8%) | 12884 (12.2%) | 18972 (18.0%) | 26973 (25.6%) | 12501 (11.9%) |
| | Yes | 340 (13.4%) | 621 (24.5%) | 314 (12.4%) | 417 (16.5%) | 585 (23.1%) | 254 (10.0%) |
| Hx of Bleeding Diathesis | No | 12181 (11.6%) | 21840 (20.8%) | 12865 (12.2%) | 18895 (18.0%) | 26935 (25.6%) | 12442 (11.8%) |
| | Yes | 309 (11.5%) | 650 (24.3%) | 326 (12.2%) | 484 (18.1%) | 604 (22.5%) | 306 (11.4%) |
| Hx of Stroke | No | 12274 (11.5%) | 22068 (20.7%) | 13045 (12.2%) | 19193 (18.0%) | 27351 (25.7%) | 12646 (11.9%) |
| | Yes | 225 (17.1%) | 438 (33.4%) | 152 (11.6%) | 192 (14.6%) | 199 (15.2%) | 106 (8.1%) |
| Hx of Skin Cancer | No | 11403 (11.9%) | 20267 (21.1%) | 11910 (12.4%) | 17301 (18.0%) | 24137 (25.1%) | 10957 (11.4%) |
| | Yes | 1080 (9.2%) | 2223 (18.9%) | 1267 (10.7%) | 2059 (17.5%) | 3380 (28.7%) | 1780 (15.1%) |
| Estrogen Use | Never | 8103 (11.7%) | 14164 (20.4%) | 8505 (12.3%) | 12321 (17.8%) | 17832 (25.7%) | 8340 (12.0%) |
| | Past | 1678 (12.0%) | 3299 (23.6%) | 1676 (12.0%) | 2424 (17.3%) | 3326 (23.8%) | 1574 (11.3%) |
| | Current | 2717 (11.0%) | 5039 (20.5%) | 3008 (12.2%) | 4628 (18.8%) | 6377 (25.9%) | 2837 (11.5%) |
| Estrogen + Progestin Use | Never | 10074 (12.6%) | 17922 (22.5%) | 10115 (12.7%) | 14088 (17.7%) | 18877 (23.7%) | 8738 (10.9%) |
| | Past | 863 (9.3%) | 1694 (18.3%) | 1077 (11.7%) | 1684 (18.2%) | 2632 (28.5%) | 1283 (13.9%) |
| | Current | 1565 (8.3%) | 2893 (15.4%) | 2005 (10.6%) | 3609 (19.2%) | 6037 (32.0%) | 2732 (14.5%) |
| Estrogen-Alone Trial | Placebo | 523 (14.2%) | 963 (26.2%) | 535 (14.6%) | 598 (16.3%) | 733 (20.0%) | 319 (8.7%) |
| | Treated | 512 (14.4%) | 976 (27.5%) | 496 (14.0%) | 570 (16.1%) | 689 (19.4%) | 301 (8.5%) |

| | | | | | | | |
|-----------------------------------|---------|-----------------|-----------------|-----------------|-----------------|--------------|--------------|
| Estrogen + Progestin Trial | Placebo | 689 (12.5%) | 1014 (18.5%) | 776 (14.1%) | 944 (17.2%) | 1352 (24.6%) | 719 (13.1%) |
| | Treated | 704 (12.1%) | 1126 (19.4%) | 796 (13.7%) | 1045 (18.0%) | 1422 (24.5%) | 708 (12.2%) |
| Calcium-Vitamin D Trial | Placebo | 1386 (11.2%) | 2468 (19.9%) | 1720 (13.8%) | 2330 (18.8%) | 3209 (25.8%) | 1307 (10.5%) |
| | Treated | 1404 (11.3%) | 2432 (19.6%) | 1712 (13.8%) | 2323 (18.7%) | 3219 (26.0%) | 1309 (10.6%) |
| Dietary Modification Trial | Placebo | 1376 (10.3%) | 2662 (20.0%) | 1769 (13.3%) | 2633 (19.7%) | 3578 (26.8%) | 1315 (9.9%) |
| | Treated | 2114 (10.7%) | 4049 (20.5%) | 2675 (13.5%) | 3819 (19.3%) | 5224 (26.4%) | 1895 (9.6%) |

Supplemental Figure 1: Polychoric correlation between alcohol consumption and smoking habits

