**Supplementary table 1.** Association between SNPs in *OSMR* and patient’s characteristics.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Characteristics | rs2278329 | | | | | |  | rs2292016 | | | | | |
| Genotype | | | OR (95% CI) **a** | | |  | Genotype | | | OR (95% CI) **a** | | |
| GG | GA | AA | Dominant (GG *VS.* GA/AA) | Recessive (GG/GA *VS.* AA) | Over-dominant (GG/AA *VS.* GA) |  | GG | GT | TT | Dominant (GG *VS.* GT/TT) | Recessive (GG/GT *VS*. TT) | Over-dominant (GG/TT *VS.* GT) |
| **Age** | | | | | | | | | | | | | |
| ≤50 | 32 (38.1%) | 44 (52.4%) | 8 (9.5%) | 0.8  (0.43-1.51) | 1.28  (0.47-3.49) | 0.74  (0.39-1.37) |  | 34 (40.5%) | 42 (50.0%) | 8 (9.5%) | 0.84  (0.45-1.57) | 1.12  (0.40-3.14) | 0.81  (0.43-1.51) |
| >50 | 33 (43.4%) | 34 (44.7%) | 9 (11.8%) |  | 34 (44.7%) | 34 (44.7%) | 8 (10.5%) |
| **Histological type** | | | | | | | | | | | | | |
| Serous | 38 (44.7%) | 39 (45.9%) | 8 (9.4%) | 1.44  (0.76-2.72) | 1.31  (0.48-3.59) | 1.28  (0.69-2.38) |  | 40 (47.1%) | 38 (44.7%) | 7 (8.2%) | 1.49  (0.79-2.81) | 1.52  (0.54-4.30) | 1.27  (0.68-2.37) |
| Others | 27 (36.0%) | 39 (52.0%) | 9 (12.0%) |  | 28 (37.3%) | 38 (50.7%) | 9 (12.0%) |
| **FIGO stage** | | | | | | | | | | | | | |
| I-II | 17 (35.4%) | 25 (52.1%) | 6 (12.5%) | 0.73  (0.36-1.47) | 0.76  (0.26-2.20) | 0.83  (0.42-1.63) |  | 18 (37.5%) | 24 (50.0%) | 6 (12.5%) | 0.74  (0.37-1.49) | 0.69  (0.23-2.01) | 0.87  (0.44-1.71) |
| III-IV | 48 (42.9%) | 53 (47.3%) | 11 (9.8%) |  | 50 (44.6%) | 52 (46.4%) | 10 (8.9%) |
| **Tumor grade** | | | | | | | | | | | | | |
| Low-grade | 47 (42.3%) | 55 (49.5%) | 9 (8.1%) | 1.20  (0.52-2.78) | 1.31  (0.33-5.18) | 1.09  (0.48-2.47) |  | 51 (46.0%) | 49 (44.1%) | 11 (9.9%) | 1.62  (0.69-3.79) | 0.32  (0.04-2.62) | 2.07  (0.90-4.79) |
| High-grade | 11 (37.9%) | 15 (51.7%) | 3 (10.3%) |  | 10 (34.5%) | 18 (62.1%) | 1 (3.5%) |

OR = odds ratio, CI = confidence interval, FIGO = International Federation of Gynecology and Obstetrics.

a Adjusted by age, sex, smoking status, tumor grade and tumor stage.

**Supplementary table 2.** Association between SNPs in *OSMR* and patients’ outcome of non-serous ovarian cancer.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SNP/genotype | Non-serous Ovarian Cancer | | | | | | |
|  | Alive/  dead, *N* | OR (95% CI) a | *P* |  | Recurrence/  Non-recurrence, *N* | OR (95% CI) a | *P* |
| rs2278329 |  |  |  |  |  |  |  |
| GG | 23/4 |  |  |  | 4/23 |  |  |
| GA | 33/6 |  |  |  | 5/34 |  |  |
| AA | 8/1 |  |  |  | 0/9 |  |  |
| Dominant |  | 1.69 (0.42-6.77) | 0.46 |  |  | 0.83 (0.19-3.64) | 0.80 |
| Recessive |  | 1.77 (0.20-15.60) | 0.61 |  |  | NA | 0.98 |
| Over-dominant |  | 1.36 (0.38-4.88) | 0.64 |  |  | 1.00 (0.23-4.34) | 0.99 |
| rs2292016 |  |  |  |  |  |  |  |
| GG | 23/5 |  |  |  | 6/22 |  |  |
| GT | 34/4 |  |  |  | 2/36 |  |  |
| TT | 7/2 |  |  |  | 1/8 |  |  |
| Dominant |  | 1.64 (0.45-5.98) | 0.45 |  |  | 0.21 (0.04-1.18) | 0.08 |
| Recessive |  | 2.55 (0.51-12.77) | 0.26 |  |  | 1.57 (0.18-13.47) | 0.68 |
| Over-dominant |  | 1.05 (0.29-3.75) | 0.94 |  |  | 0.13 (0.01-1.13) | 0.07 |

OR = odds ratio, CI = confidence interval, NA = not available, *N* corresponds to the number of individuals.

a adjusted by age, stage and tumor grade.

**Supplementary** **Figure 1.** Kaplan-Meier survival curves of OSMR rs2278329 polymorphisms in OC patients.

A: codominant genetic model, B: dominant genetic model, C: recessive genetic model, D: overdominant genetic model, N: numbers of OC patients.

