

Correction: Sequencing of the MHC region defines HLA-DQA1 as the major genetic risk for seropositive rheumatoid arthritis in Han Chinese population

Guo J, Zhang T, Cao H, *et al.* Sequencing of the MHC region defines HLA-DQA1 as the major genetic risk for seropositive rheumatoid arthritis in Han Chinese population. *Ann Rheum Dis* 2019;78:773–80. doi: 10.1136/annrheumdis-2018-214725.

- ▶ In the text, all DRβ1:96 hours should be DRβ1:96H.
- ▶ The sentence on page 775, “followed by DQα1:160A ($p=6.25 \times 10^{-17}$, OR=2.27, 95% CI 1.87 to 2.75)” should be “followed by DQα1:160A ($p=6.25 \times 10^{-17}$, OR=0.44, 95% CI 0.36 to 0.53)”.
- ▶ The sentences on page 776,
 - “DRβ1:96 hours also showed a significant association ($p=6.27 \times 10^{-7}$, OR=1.59, 95% CI 1.33 to 1.91)” should be “DRβ1:96H also showed a significant association ($p=6.27 \times 10^{-7}$, OR=0.64, 95% CI 0.53 to 0.77)”.
 - “Although DRβ1:96 hours became the second independent signal ($p=2.80 \times 10^{-10}$, OR=1.68, 95% CI 1.43 to 1.97)” should be “although DRβ1:96H became the second independent signal ($p=2.80 \times 10^{-10}$, OR=0.58, 95% CI 0.49 to 0.68)”.
 - “DRβ1:96 hours and DRβ1:37N showed similar independent effects (DRβ1:96 hours: $p=4.90 \times 10^{-16}$, OR=1.64, 95% CI 1.45 to 1.84...” should be “DRβ1:96H and DRβ1:37N showed similar independent effects (DRβ1:96H: $p=4.90 \times 10^{-16}$, OR=0.60, 95% CI 0.54 to 0.68...”.

Figure 3 has been corrected. In the revised figure 3, the frequencies on Y axis have been presented according to original frequencies instead of the minor frequencies.

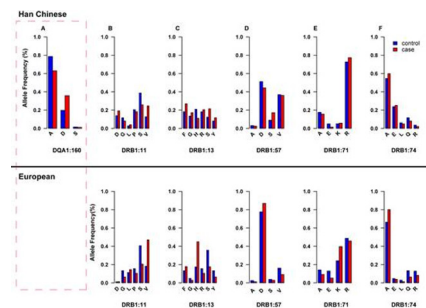


Figure 3 Comparison of individual amino acid frequencies within DQα1:160 and DRβ1:11, 13, 57, 71, and 74 in Han Chinese and European populations. The individual amino acid frequencies are plotted in healthy controls (blue) and cases (red). Upper panel shows the amino acid frequencies in Han Chinese population (the data derived from present study). Lower panel shows the amino acid frequencies in European population (the data cited from Raychaudhuri's study⁶). (A) DQα1:160D and DQα1:160A are common amino acids in Han Chinese, but the two variants have not been detected in European population. Similar frequencies of amino acids were observed at DRβ1 position 11(B), 13(C), 57(D), 71(E), and 74(F) between Han Chinese and European populations.

Supplementary tables 3–6 and 8 have been corrected. In these tables, a few frequencies have now been presented as original frequencies instead of the minor frequencies and the ORs have been revised accordingly.

Supplementary Table 3 Logistic regression analysis in discovery cohort, using gender as covariate

| CHR | Marker | Case | Control | Non-reference amino-acid | OR (95% CI) | P value |
|-----|------------|------|---------|--------------------------|---------------------|----------|
| 6 | DQA1:160:A | 0.62 | 0.79 | DQA1:160:A | 0.44 (0.36 to 0.53) | 6.25E-17 |
| 6 | DQA1:34:E | 0.60 | 0.48 | DQA1:34:E | 1.66 (1.39 to 1.99) | 7.46E-09 |
| 6 | DRB1:31:F | 0.71 | 0.81 | DRB1:31:F | 0.58 (0.47 to 0.70) | 8.77E-08 |
| 6 | DRB1:10:Q | 0.70 | 0.60 | DRB1:10:Q | 1.58 (1.31 to 1.91) | 9.14E-07 |

P value less than 1.0×10^{-6} was considered as cut-off.

Supplementary Table 4 Stepwise conditional analysis on HLA-DQ α 1:160D in discovery cohort, using gender as covariate

| CHR | Marker | Case | Control | Non-reference amino-acid | OR (95% CI) | P value |
|-----|-----------|------|---------|--------------------------|---------------------|----------|
| 6 | DRB1:96:H | 0.55 | 0.64 | DRB1:96:H | 0.64 (0.53 to 0.77) | 6.27E-07 |

P value less than 1.0×10^{-6} was considered as cut-off.

Supplementary Table 5 Logistic regression analysis in validation cohort, using gender as covariate

| CHR | Marker | Case | Control | Non-reference amino-acid | OR (95% CI) | P value |
|-----|------------|------|---------|--------------------------|---------------------|----------|
| 6 | DQA1:160:A | 0.63 | 0.78 | DQA1:160:A | 0.47 (0.40 to 0.56) | 4.18E-17 |
| 6 | DQA1:34:E | 0.60 | 0.47 | DQA1:34:E | 1.63 (1.40 to 1.89) | 1.41E-10 |
| 6 | DRB1:96:H | 0.52 | 0.64 | DRB1:96:H | 0.59 (0.50 to 0.68) | 4.06E-10 |
| 6 | DRB1:10:Q | 0.71 | 0.60 | DRB1:10:Q | 1.61 (1.38 to 1.87) | 4.13E-09 |

P value less than 5.0×10^{-8} was considered as cut-off.

Supplementary Table 6 Stepwise conditional analysis on HLA-DQ α 1:160D in validation cohort, using gender as covariate

| CHR | Marker | Case | Control | Non-reference amino-acid | OR (95% CI) | P value |
|-----|-----------|------|---------|--------------------------|---------------------|----------|
| 6 | DRB1:96:H | 0.52 | 0.64 | DRB1:96:H | 0.58 (0.49 to 0.68) | 2.80E-10 |
| 6 | DRB1:74:A | 0.61 | 0.56 | DRB1:74:A | 1.59 (1.35 to 1.88) | 5.26E-07 |

P value less than 5.0×10^{-8} was considered as cut-off.

Supplementary Table 8 Stepwise conditional analysis on HLA-DQ α 1:160D in combined cohort, using gender as covariate

| CHR | Marker | Case | Control | Non-reference amino-acid | OR (95% CI) | P value |
|-----|-----------|------|---------|--------------------------|---------------------|----------|
| 6 | DRB1:96:H | 0.53 | 0.64 | DRB1:96:H | 0.60 (0.54 to 0.68) | 4.90E-16 |
| 6 | DRB1:74:A | 0.60 | 0.55 | DRB1:74:A | 1.58 (1.39 to 1.78) | 2.04E-12 |

P value less than 5.0×10^{-8} was considered as cut-off.

Case: frequencies of the Non-reference amino-acid in cases.

Control: frequencies of the Non-reference amino-acid in controls.

© Author(s) (or their employer(s)) 2020. No commercial re-use. See rights and permissions. Published by BMJ.

Ann Rheum Dis 2020;**79**:e76. doi:10.1136/annrheumdis-2018-214725corr1

