



Human leukocyte antigen-B27 alleles in Xinjiang Uygur patients with ankylosing spondylitis

H.-Y. Zou, W.-Z. Yu, Z. Wang, J. He and M. Jiao

Institute of Clinical Medicine,
Urumqi General Hospital, Lanzhou Military Area Command, Urumqi,
Xinjiang, China

Corresponding author: H.-Y. Zou
E-mail: yijiamin2000@yeah.net

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ABSTRACT. We investigated the distribution of human leukocyte antigen (HLA)-B27 subtypes in Uygur ankylosing spondylitis patients in Xinjiang. B27-positive patients with ankylosing spondylitis were subtyped by using polymerase chain reaction-sequence-based typing. The HLA-B27 subtype frequencies of Uygur patients were compared with those in Han patients in Xinjiang and the other areas of China. B*2705 was the predominant subtype in Uygur patients with a frequency of 58.95%, which was much higher than that in Han patients in Xinjiang (31.58%, $P < 0.05$) and the other areas of China (excluding the Shandong region, which was 63.89%). The frequency of B*2704 (27.37%) in Uygur patients was the lowest and significantly lower than that in Han patients (61.18%, $P < 0.05$) and in 8 other areas of China. B*2710 has not been previously reported in Uygur ankylosing spondylitis patients; B*2704 was the main (61.18%) subtype in Han patients in Xinjiang, followed by B*2705 (31.58%) and was similar to the characteristics of Han patients in the other areas of China. B*2724 in Han ankylosing

spondylitis patients has not been previously reported. Additionally, the B*2702/B*2705 homozygote was identified in Uygur patients. B*2702/B*2704, B*2704/B*2705, and B*2705/B*2705 homozygotes were identified in 3 Han patients. The distribution of HLAB27 subtypes in Uygur ankylosing spondylitis patients in Xinjiang significantly differed from that in Han patients. Understanding the distribution of HLAB27 subtypes in ethnic minority populations of Xinjiang is important for anthropological genetic studies and for analyzing the impact of genetic background on ankylosing spondylitis susceptibility.

Key words: Ankylosing; Human leukocyte antigen; Spondylitis; Uygur nationality