Investigation of polymorphisms in exon7 of the NSUN7 gene among Chinese Han men with asthenospermia

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ABSTRACT. Previous studies have shown that genetic polymorphisms in exon7 of the NSUN7 gene can be used as an infertility marker in Iranian men with asthenospermia. However, there have been no equivalent studies in China. In the present study, we investigated the possible association between the genetic polymorphisms in exon7 of NSUN7 and asthenospermia in a Chinese Han population. We recruited 240 asthenospermic men as a patient group and 256 normospermic men as a control group, and analyzed the semen parameters on the basis of World Health Organization (WHO) guidelines. The genetic polymorphisms in exon7 of NSUN7 were detected by DNA sequence analysis. The results were analyzed statistically and a P value < 0.05 was considered significant. There were two genetic polymorphisms, c.906C>T and c.922T>G, in exon7 of NSUN7. We found relatively similar genotypes and allele frequencies between the two groups (P = 0.928, P = 0.928,
respectively). The combined genotypes of the two polymorphisms did not identify a haplotype associated with asthenospermia (P = 0.824, P = 0.824, respectively). Our findings revealed that genetic polymorphisms in exon7 of the NSUN7 gene are not associated with asthenospermia in Chinese Han men.

**Key words:** Genetic polymorphisms; NSUN7 gene; Asthenospermia