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Impact of *LDB3* gene polymorphisms on clinical presentation and implantable cardioverter defibrillator (ICD) implantation in Chinese patients with idiopathic dilated cardiomyopathy

Key words: Idiopathic dilated cardiomyopathy, Implantable cardioverter defibrillator (ICD), LIM domain binding 3 (*LDB3*), Polymorphism, Han Chinese

Research Summary

This research mainly focused on the association of polymorphisms in the *LDB3* gene with susceptibility to IDCM in Chinese populations as well as impact of the polymorphisms on clinical presentation and ICD implantation, and obtain the following:

- identified nine SNPs did not deviate from HWE.
- > the rs4468255 was significantly correlated with IDCM of Chinese Han population.
- rs11812601, rs56165846 and rs3740346 in LDB3 show association with BNP, DBP and LVEF levels.
- A allele of rs4468255 is higher in IDCM patients with ICD implantation.

Innovation points

A series of comprehensive tables and figures were generated to summarize the study of *LDB3* gene polymorphism in IDCM.

- Table 1 Clinical characteristics of IDCM patients categorized by gender.
- Table 2 Allele and genotype distributions of *LDB3* genetic polymorphisms in IDCM patients and controls.
- Table 3 Distribution of SNPs in *LDB3* among cases and controls and their association with IDCM risk based on two genetic models.
- Table 4 | Association of *LDB3* polymorphisms with clinical characteristics of IDCM patients.
- Table 5 Genetic basis of *LDB3* gene polymorphisms in ICD recipients.
- Figure 1 | Pairwise SNP linkage disequilibrium map.
- Table 6 LDB3 haplotype distribution and effect on IDCM and controls.