**Background** Although adjunctive BNJ to clopidogrel can enhance the antiplatelet effect in volunteers with CYP2C19\*2 gene mutation, it is unknown whether adjunctive BNJ can improve the clinical prognosis in patients with CYP2C19\*2 gene mutation undergoing PCI.

**Methods** 90 patients with CYP2C19\*2 gene mutation after a 300-mg loading dose of clopidogrel were enrolled. CYP2C19\*2 gene mutation was confirmed by TaqMan PCR. Patients were randomly assigned to receive either adjunctive BNJ (trial group; n=45) or standard maintenance dose clopidogrel (control group; n=45). Platelet function was assessed at baseline and after 7 days with conventional aggregometry. Subsequent major adverse cardiovascular events (MACE, including cardiac death and acute coronary syndrome) were recorded during a median follow-up of 9 months.

**Results** Baseline platelet function measurements were similar in both groups. After 7 days, Percent inhibitions of 5 µmol/l ADP-induced maximum platelet aggregation and late platelet aggregation were significantly greater in the trial versus control group (42.3±16.0% vs 20.8±15.2%, p<0.001, and 54.7±18.3% vs 21.5±29.2%, p<0.001, respectively). During a follow-up for median 9 months, subsequent MACE (6/45) in trial group were much lower than those (14/45) in control group (p<0.05).

**Conclusion** Adjunctive BNJ to standard maintenance dose clopidogrel can enhance the antiplatelet effect and decrease subsequent MACE in patients who carried CYP2C19\*2 gene mutation undergoing PCI.

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RANDOMISED COMPARISON OF ADJUNCTIVE NAOXINTONG VERSUS STANDARD MAINTENANCE DOSE CLOPIDOGREL IN PATIENTS WITH CYP2C19\*2 GENE MUTATION

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**Objectives** The purpose of this study was to determine the impact of adjunctive Buchang Naoxintong Jiaonang (BNJ) in patients with CYP2C19\*2 gene mutation undergoing percutaneous coronary intervention (PCI).