# P-glycoprotein: a clue to vitamin K antagonist stabilization

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**Abstract**

**Introduction:** Acenocoumarol is a vitamin K antagonist used in some European countries. As warfarin, this drug is characterized by a narrow therapeutic index and a large interindividual variability.

**Objective:** The objective of this study was to assess the involvement of *ABCB1* polymorphisms on acenocoumarol treatment.

**Method:** An observational cohort study was conducted to assess whether there is an association between the presence of the allelic variants of the *ABCB1* gene coding for P-glycoprotein and acenocoumarol stabilization and daily doses during the first 35 days of treatment.

**Results:** One hundred and fifteen patients met the inclusion criteria. The results of the clinical study showed that carriers of *ABCB1* c.3435TT were more rapidly stabilized than wild-type patients (HR: 2.97, 95% CI: 1.23–7.18; p = 0.02). The same tendency was observed for the *ABCB1* c.2677GT and 2677TT genotypes compared with *ABCB1* c.2677GG. The *ABCB1* c.2677TT genotype was also associated with a significant increase in doses of acenocoumarol (p = 0.03), the same tendency was observed with the *ABCB1* c.3435TT genotype compared with the wild-type patients.

**Conclusion:** These data suggest that *ABCB1* polymorphisms could be involved in the response to acenocoumarol treatment.

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