

On the other hand, the stent type is also crucial in case of recurrent ischemic events. In addition, DAPT duration can differ according to the first- and second-generation DES. DAPT duration can be shorter in second-generation DES than in first-generation DES (5). It will be beneficial to know which generation of stent was used in your case, which could have led to a better outcome of DAPT discontinuation.

**Serkan Kahraman, Murat Ziyrek**  
Department of Cardiology, Silivri State Hospital; İstanbul-Turkey

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**Address for Correspondence:** Dr. Serkan Kahraman  
Silivri Devlet Hastanesi, Kardiyoloji Kliniği  
Ebrahim Öztürk Cad. No: 1 Silivri, İstanbul-Türkiye  
E-mail: serkankahraman\_86@outlook.com

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## Author's Reply

To the Editor,

We thank the authors for their contribution to our study that was recently published in the *Anatolian Journal of Cardiology* 2017; 17: 73-4 entitled "Ticagrelor-associated thrombotic thrombocytopenic purpura" (1). Initially, we used biolimus-eluting stent during primary percutaneous coronary intervention in the patient. Although DAPT duration was reduced to at least 6 months in patients with stable coronary artery disease, DAPT duration of at least 12 months is still recommended in patients with ST elevation myocardial infarction (2). Numerous studies have indicated that second-generation stents have low stent thrombosis (ST) and major adverse cardiac events. A 3-month usage of these new stents in treatment has shown to be unrelated to increased ST rate (3). Even with these findings, we could not conclude whether ticagrelor cessation at 5 weeks of therapy in our case would not have caused ST. In addition,

the authors mainly emphasized a switch to thienopyridine derivatives. A switch from clopidogrel to ticlopidine and no relapse in the aforementioned case (4) could be explained by different action mechanisms leading to TTP with clopidogrel and ticlopidine. ADAMTS-13 deficiency is common in ticlopidine-associated cases in contrast to ADAMTS-13 independence in clopidogrel-associated ones (5). Prasugrel-linked TTP cases are few, and the exact mechanism is not clearly identified. Our ticagrelor-linked TTP case was also the first one in literature, and its exact mechanism was also not established. Eventually, P2Y12 inhibition was not re-initiated, and fortunately, no ST or TTP relapse occurred.

**Ali Doğan**  
Department of Cardiology, Gaziosmanpaşa Hospital, Faculty of Medicine, İstanbul Yeni Yüzyıl University; İstanbul-Turkey

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**Address for Correspondence:** Dr. Ali Doğan  
İstanbul Yeni Yüzyıl Üniversitesi Tıp Fakültesi  
Gaziosmanpaşa Hastanesi, Kardiyoloji Anabilim Dalı,  
Gaziosmanpaşa, İstanbul-Türkiye  
E-mail: drdali@hotmail.com

## IRAK-4 Variants in acute coronary syndrome patients

To the Editor,

In recent years, the role of biomarkers that reflect the inflammation and the inflammatory situation in coronary artery disease has been investigated in many studies (1, 2). Acute

coronary syndrome (ACS), as the name suggests, defines all clinical situations caused by myocardial ischemia as a result of the decrease in coronary artery blood flow. IRAK-4 is an element of TLR signal pathway that plays a particularly important role in innate immunity (3, 4). As a result of the stimulation of IRAK-4, other mediators that play roles in cytokine and inflammatory responses in the continuance of the signal pathway are also activated. In a study that showed the relation between ACS inflammations conducted by Wyss et al. (5), the toll-like receptors and cytokine levels were examined; herein, TLR-4 activation reportedly stimulated cytokine release and played an active role in ACS.

In this study, since the IRAK-4 protein, which is encoded by IRAK-4 gene, is a part of the signal pathway that plays a role in the onset of the inflammation, we aimed to investigate the role of polymorphisms in this gene in acute coronary syndrome. In this context, 10 SNP regions of IRAK-4 gene (rs3805198, rs4251545, rs1141168, rs4238087, rs4251465, rs1057190, rs4251425, rs4251527, rs4251580, and rs4251481) were investigated in 80 patients who were diagnosed with acute coronary syndrome, and 64 healthy individuals were also included in the study as the control group. Gene distribution in SNP regions of IRAK-4 gene did not significantly differ between the patients and healthy individuals in our study. A difference that was very close to statistical significance was detected in terms of rs3805198 genotype and allele distributions; and it was determined that the natural type genotype frequency increased in the patient group ( $p=0.053$ ).

No studies conducted in Turkey on IRAK-4 gen polymorphisms were seen in the literature review. For this reason, the results we obtained constitute the first example in Turkey in terms of the genotype distributions in this 10 SNP region. According to our results, the mutant genotype was not detected in either of the groups for rs4251425, rs1057190, rs4251481, rs3805198, and rs4251527 polymorphisms. The rs1141168 mutant genotype frequency was observed to be the highest of all variants, with a frequency of 31.9%.

Our study is the first study conducted on ACS patients in terms of IRAK-4 gene. Our results show the first results on the IRAK-4 rs3805198, rs4251545, rs1141168, rs4238087, rs4251465, rs1057190, rs4251425, rs4251527, rs4251580, and rs4251481 variant frequencies in the Turkish population.

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**Arzu Ergen<sup>1</sup>, Osman Fazlıoğulları<sup>2</sup>, Cem Başaran<sup>2</sup>, Faruk Çelik<sup>1</sup>, Gonca Candan<sup>1</sup>, Özlem Timirci-Kahraman<sup>1</sup>, Ümit Zeybek<sup>1</sup>**

**<sup>1</sup>Department of Molecular Medicine, Aziz Sancar Institute of Experimental Medicine, İstanbul University; İstanbul-Turkey**

**<sup>2</sup>Department of Cardiovascular Surgery, Medicana Bahçelievler Hospital; İstanbul-Turkey**

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**Address for Correspondence:** Dr. Arzu Ergen

İstanbul Üniversitesi Aziz Sancar Deneysel Tıp Araştırma Enstitüsü  
Moleküler Tıp Anabilim Dalı, İstanbul-Türkiye

E-mail: a\_ergen@yahoo.com, aergen@istanbul.edu.tr

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