



# Transient Palatal Myoclonus Due to Opercular Ischemic Lesion

## *Operküler İskemik Lezyona Bağlı Geçici Palatal Miyoklonus*

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Dear editor,

Palatal myoclonus (PM) is accompanied by synchronized movements of the facial muscles, larynx, and tongue (1). This condition is often caused by a focal brainstem lesion that damages the dentato–rubro–olivary pathway (Guillain Mollaret’s triangle or myoclonic triangle). However, transient PM is rarely due to cortical (especially opercular region) lesions (2). Here, the authors wanted to indicate a case of PM that developed after cortical ischemic stroke. A 46-year-old, right-handed male patient presented with an acute onset of abnormal, involuntary movements of the soft palate, tongue, lips, and jaw for the last 6 hours. He had speech disturbances and difficulty in swallowing. The patient occasionally had choking episodes. He had been monitored in the hospital for acute ischemic stroke 7 days prior. He was a chronic smoker (20 pack-years of smoking) and occasionally consumed alcohol. In the general physical examination, his vital signs were normal. The neurological examination revealed that his speech was slow, dysarthric, and bilateral, and he showed symmetrical, involuntary, continuous, repetitive, and synchronized rhythmic myoclonus involving the soft palate, lips, chin, tongue, and jaw at a rate of 100–120/min (Video 1). The electroencephalogram was normal (Figure 1A). Magnetic resonance imaging of the brain-diffusion weighted axial image showed a restriction in the left frontal opercular cortex, suggesting an acute and subacute infarct (Figure 1B, C). He was treated with oral aspirin (100 mg once daily). Laboratory investigations revealed low platelet

counts and elevated antiphospholipid antibodies. Further, the two-dimensional echocardiography, carotid and vertebral arterial doppler studies were normal. During the hospital stay, myoclonus improved over a period of 36 hours (Video 1). During the follow-up period of 6 months, the patient had no recurrence of myoclonus.

Transient PM occurs when the inferior rolandic area or adjacent frontal cortex is affected by an ischemic lesion. This condition affects the muscles of the soft palate, causing rapid and involuntary contractions that result in clicking or popping sounds. The rolandic area is a specific region in the brain that is involved in controlling movement and sensation in the face and mouth. Some studies have suggested that transient PM may be related to abnormal activity in the rolandic area of the brain (2,3,4). However, the exact relationship between transient PM and the rolandic area is not well understood, and more research is needed to fully understand the underlying mechanisms of this condition. Some theories suggest that transient PM may be due to a problem with the neural pathways that control the muscles of the palate or a problem with the muscles themselves. It is also possible that the condition may be related to other underlying neurological or medical conditions that affect the rolandic area or other parts of the brain and nervous system. Transient PM may manifest during the development of acute opercular or adjacent cortical infarction, and it should be noted that it can disappear spontaneously during the follow-up period, as shown in this case.

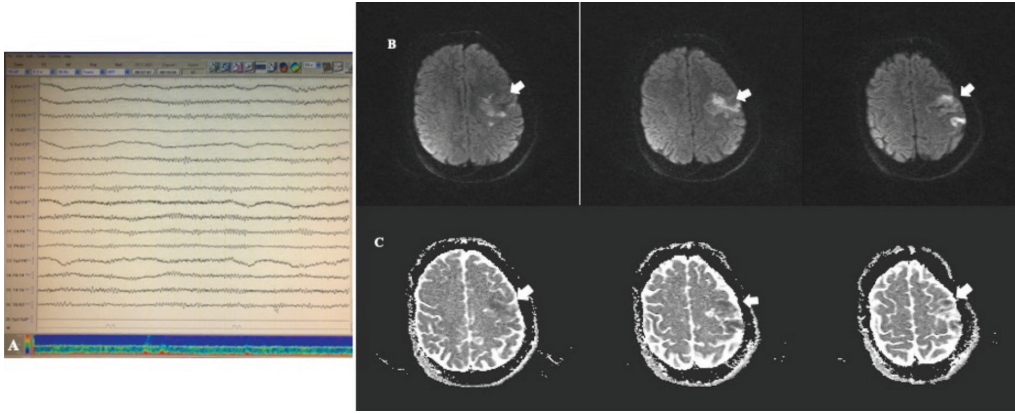
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**Figure 1.** Normal electroencephalogram (A). Magnetic resonance imaging of brain-diffusion weighted axial image showed a restriction in the left frontal opercular cortex, suggesting acute and subacute infarct (B, C)

#### Ethics

**Informed Consent:** Written consent was obtained.

**Peer-review:** Externally and internally peer-reviewed.

#### Authorship Contributions

Surgical and Medical Practices: L.Ö., D.A., U.Ş., Concept: L.Ö., Design: L.Ö., D.A., Data Collection or Processing: L.Ö., D.A., Analysis or Interpretation: L.Ö., D.A., Literature Search: L.Ö., D.A., U.Ş., Writing: L.Ö.

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<https://cms.galenos.com.tr/SolvePark/Uploads/Files/10.4274.tnd.2023.17364-Video%201.mp4>

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