

# THE IMPACT OF AVERSIVE ADVICE DURING PERCUTANEOUS CORONARY INTERVENTION ON SMOKING CESSATION IN PATIENTS WITH ACUTE CORONARY SYNDROME: A RANDOMIZED CONTROLLED STUDY

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**Background:** Smoking cessation is important to prevent recurrence of acute coronary syndrome (ACS), but even in ACS patients, smoking is hard to quit. We hypothesized that aversion therapy during percutaneous coronary intervention (PCI) procedure works effectively to promote smoking cessation in patients with ACS.

**Methods:** This study was conducted as a prospective, single-blinded, randomized controlled trial. A total of 30 patients were included in the analysis. Patients were randomly assigned in a 1:1 ratio to an aversive advice group or a control group. In the aversive advice group, a physician who did not participate in the patient follow-up said the following three sentences to the patients during the PCI procedure. "Smoking caused your chest pain", "If you do not stop smoking right now, this pain will come again", and "You will be probably dead, if you feel this pain again". After hospitalization, all patients were instructed to visit the outpatient clinic 1, 4, and 24 weeks after discharge. During each visit, urine cotinine levels were measured.

**Results:** Of the total 30 subjects, 15 subjects were presented as ST elevation myocardial infarction and 19 subjects had a multi-vessel disease. At 24 weeks after discharge, smoking cessation rate was higher in the aversion therapy group versus the control group (relative risk=7.56, 95% CI: 1.49-38.15). In a generalized estimating equation model, after adjustment for age, smoking quantity, and disease severity, aversion therapy had a significant effect on smoking cessation (odds ratio=3.602, 95% CI: 1.269-10.225).

**Conclusion:** Aversion therapy during a PCI procedure is effective at smoking cessation in patients with ACS. A physician's attention and involvement during a PCI procedure is imperative for smoking cessation in patients with ACS.

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