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## Nicotine patch demonstrated to be safe in smokers with CAD

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Nicotine patches used for smoking cessation are safe in patients with coronary artery disease (CAD) and active stress-induced myocardial ischemia, according to Monika J. Leja, MD.

Dr Leja and colleagues at The Methodist DeBakey Heart Center in Houston, Tex, studied 55 heavy smokers with >9% perfusion defect size on single photon emission computed tomography (SPECT), randomizing them to a 21-mg nicotine patch (n=28) or a placebo patch (n=27). The participants were not required to stop smoking to be included in the trial.

The safety of nicotine patches in patients with CAD who continue to smoke is uncertain because nicotine is known to increase heart rate and blood pressure, and may induce vasoconstriction, Dr Leja said.

■ The total perfusion defect size went from 24.8% at baseline to 24.2% at week 1 in the participants assigned to the nicotine patch.

The subjects smoked a mean of 29 cigarettes per day at baseline. SPECT scans were repeated after 1 week, at which time the subjects were encouraged to stop smoking and continue patch use. Another SPECT scan was performed at Week 4. Ischemia identified on SPECT imaging has been demonstrated to increase the risk of subsequent coronary events in patients with CAD.

As expected, nicotine levels increased significantly in the nicotine patch wearers but despite this increase, there was no significant change in the total or ischemic perfusion defect size from baseline in the active patch wearers, compared with the placebo patch wearers.

The total perfusion defect size did not change significantly in either group from baseline to Week 1. The total perfusion defect size decreased from 24.8% at baseline to 24.2% at Week 1 in the participants assigned to the nicotine patch, and from 21.1% at baseline to 18.6% at Week 1 in the participants assigned to the placebo patch.