## Emotions Drive PCI Rates for Stable CAD Patients

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Washington — When it comes to recommending angioplasty for stable coronary artery disease, evidence can take a backseat to worry, guilt, and the fear of legal liability.

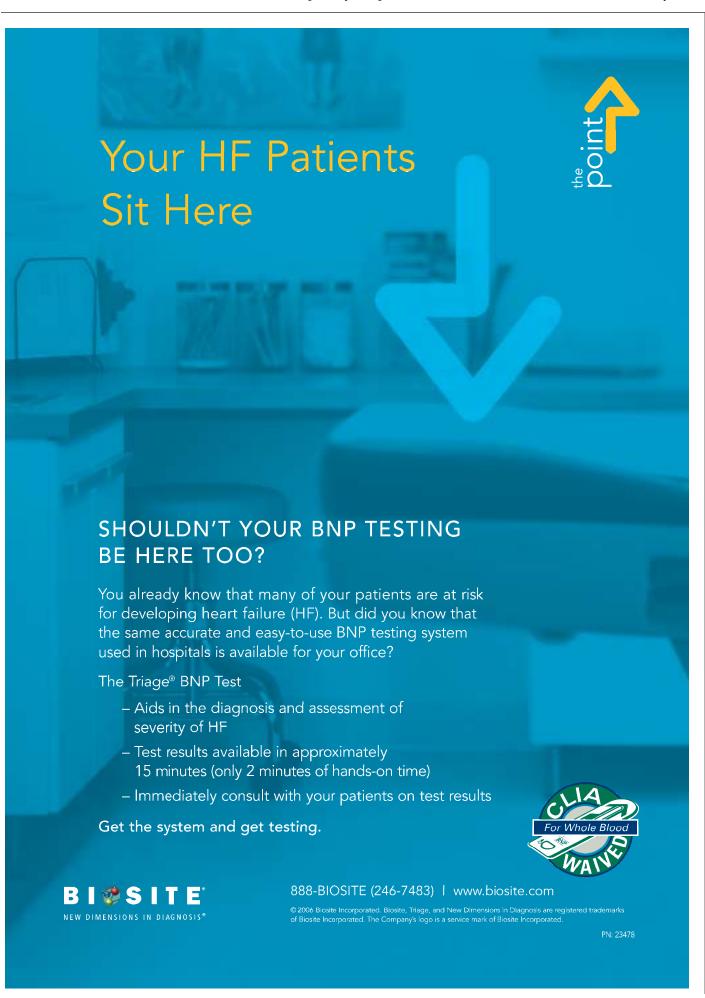
"It appears that both cardiologists and primary care physicians [PCPs] have trouble balancing these psychological and emotional factors with scientific evidence in decision making, and this leads them to recommending more tests and procedures," which eventually culminate in a trip to the cardiac catheterization lab, Dr. Grace Lin said at a conference sponsored by the American Heart Association. Once there, if any lesions at all are identified, "the die is cast" for percutaneous coronary intervention (PCI), she said.

Dr. Lin drew these conclusions from a series of six focus-group meetings she held with 28 primary care providers and 20 cardiologists (13 interventional and 7 noninterventional). She presented each group with three case scenarios based on actual patients with symptoms of stable coronary artery disease (CAD), and asked the participants to describe how they would arrive at a treatment recommendation.

All of the physicians lived in California; their mean duration of practice was 17 years. To help identify any regional differences, she drew one-third from San Francisco, one-third from the city's suburbs, and one-third from a rural county.

"We also interviewed PCPs and cardiologists separately, to encourage frank discussion," said Dr. Lin of the University of California, San Francisco.

Group discussions were set around three case scenarios representing minimally symptomatic or asymptomatic patients for whom the current evidence shows no benefit of PCI over optimal medical therapy. She described one of the cases: a 45-year-old male with a family history of myocar-



## Smokers Gain From Quitting After CABG

NEW ORLEANS — Patients who quit smoking within a year after coronary artery bypass graft surgery prolong their life expectancy by an average of 3 years, Dr. Don Poldermans said at the annual meeting of the American College of Cardiology.

"This [information] is a practical tool for physicians to use. ... It may be the ultimate reason for the patient to quit smoking," observed Dr. Poldermans of Erasmus University, Rotterdam, the Netherlands.

It's well accepted that smoking cessation after coronary revascularization or MI reduces mortality risk. Dr. Poldermans presented the first study to quantify this benefit in years of life saved.

He reported on 30-year outcomes for 1,041 consecutive patients who underwent venous CABG at the medical center in 1971-1980. A total of 551 were smokers at the time, of whom 43% quit within a year.

The 10-year survival was 88% in those who quit, compared with 77% in the persistent smokers. Survival at 15 and 30 years was 70% and 19%, respectively, in the patients who had quit smoking, compared with 53% and 11% in those who did not.

The average life expectancy was 20 years for patients who quit smoking and 17 years for persistent smokers.

Smokers younger than 50 years at the time of CABG who quit smoking within the next year lived an average of 3.5 years longer than did those who kept smoking. Patients aged 50-60 years at surgery and who ceased smoking gained an average of 2.8 years, compared with persistent smokers. Those who quit following CABG after age 60 had a 1.7-year greater life expectancy than did those who didn't quit.

Dr. Poldermans said that these are conservative estimates of the life expectancy benefit of smoking cessation because they derive from the early era of CABG. In the early 1970s, CABG was largely reserved for relatively young, otherwise healthy patients of a sort that cardiac surgeons seldom encounter today. Today's CABG patients are much sicker, older, and higher risk—and the greater a patient's risk, the greater the benefit of an effective intervention.

After adjustment for potential confounders, smoking cessation remained an independent predictor of lower mortality, conferring a 38% relative risk reduction.

—Bruce Jancin

dial infarction. The patient worked out three times each week and was asymptomatic. His wife, however, was worried about his family history and bought him a coronary calcium scan for his birthday. The scan showed a calcium score of 745.

His stress test showed ST-segment depressions of 1-2 mm. A catheterization revealed a tight lesion in the left anterior descending artery.

Dr. Lin asked the group to discuss a range of recommendations, from reassurance and risk reduction interventions to medical therapy, PCI, and coronary artery bypass grafting.

All of the physicians in each group ended up recommending PCI for all three of the hypothetical patients, Dr. Lin said—despite their acknowledgement that no clinical evidence supported the procedure as more beneficial than medical therapy in either the short or long term.

Several major themes emerged from the physician discussions: guilt over the possibility of missing a potentially lethal

All of the doctors recommended PCI despite knowing that no clinical evidence supported the procedure as more beneficial than medical therapy.

lesion, patient expectation of testing and intervention, and liability fears.

The fear of guilt arising from a missed lesion was a particularly strong motivator for more tests and interventions. One PCP spoke quite eloquent-

ly of this, Dr. Lin said. "I had a healthy 42year-old who dropped dead while jogging. I'm always afraid of missing that widowmaker lesion."

A cardiologist expressed a similar view. Despite the data suggesting that PCI is no better than medical therapy for these patients, "I don't think you can ignore a lesion, because then, if something happens, it's vour fault.'

This belief was shared by most of the physicians in our groups," Dr. Lin said. "I think it demonstrates the tendency of physicians to look for solutions based on action.

Interestingly, the participants stuck to their recommendations despite their intellectual understanding of the clinical evidence. According to one cardiologist, "I think we know we are not necessarily preventing heart attacks by treating asymptomatic stenosis with PCI. We are going to prevent future heart attacks with lipid-lowering drugs, aspirin, and ACE inhibitors. But nonetheless, when that patient leaves with an open artery—that is the best that my interventional partners can deliver."

Physicians aren't alone in wanting some concrete action in these cases, Dr Lin said. "Patient expectations are a frequent reason for testing. Both our PCPs and cardiologists said their patients expected testing regardless of what they themselves thought of it."

One cardiologist put it this way: "If the patient is worried enough to come in and see me, we need to do this testing to reassure him."

Concerns about medicolegal liability also strongly influenced the decision making. A PCP noted, "We all would feel more comfortable treating more patients medically if we weren't afraid of being sued. With a jury of laypeople, it's hard to justify not stenting despite the evidence, and because of that it's hard to just treat medically and not be afraid of a lawsuit."

Again, Dr Lin observed, physicians felt very strongly about this despite evidence to the contrary. "There are no data linking additional testing with fewer lawsuits."

All of these factors "culminate in a cascade effect where screening leads to more testing and eventually to the cath lab," she said, citing a PCP who referred to the hypothetical patient's elevated calcium load. "This guy's wife has bought him much more than a scan—she has bought him an entrée to the whole garden path of testing. Any equivocal test and he's ending up in the cath lab."

This demonstrates that once a patient has any positive screen, it's very difficult to prevent a referral to a cardiologist and eventually, to the cath lab," Dr. Lin said. "Once he reaches there, the cardiologists told us that if any amenable lesion is found, that person is almost certain to get a PCI."

The culture of the catheterization lab also plays into this inevitable progression. A cardiologist explained, "By this time the die is cast. In our practice, where we don't get paid per procedure, we would have difficulty getting out of the lab because the cath lab staff wouldn't let us out unless we did something with that lesion."

The cascade of emotion and worry is what appears to drive the patient with stable CAD to a PCI, Dr. Lin said. Even considering the possible complications of the procedure and the evidence that it probably yields no additional benefit wasn't enough to sway physicians to medical therapy alone.

"One cardiologist put it like this," she said. "'If you do the procedure and there's a complication, that's a complication. But if you don't do it and there's an eventthat's a mistake.'



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