

# HEART OF THE MATTER

## Angiography in Asymptomatic Patients

They came for a second opinion. They were both in their 50s; she a lawyer, the husband a stockbroker. He had insulin dependent diabetes for 20 years but was otherwise well. She was concerned that her husband would die suddenly just as his father had at age 70. He was without symptoms but had a nuclear exercise stress test at the behest of his local medical doctor because of his diabetes.

The test was said to be abnormal, but three subsequent in-house readers found the results normal. He was advised to have an angiogram by another cardiologist. "What should we do?"

I told her that an angiogram or a stent would not prevent him from dying suddenly. I outlined all the pros and cons and advised against it. The wife was very anxious and wanted an angiogram so that her husband wouldn't die suddenly. They both left my office, never to be seen again.



SIDNEY GOLDSTEIN, M.D.

were not evidence based, but made on the recommendation of an expert panel. The DIAD (Detection of Ischemia in Asymptomatic Diabetics) trial has since provided further insight into the issue of screening asymptomatic diabetic patients (JAMA 2009;301:1547-55), an issue that remains controversial.

Although not a randomized trial, DIAD indicates that the event rate in asymptomatic diabetic patients in general is low, and that a positive myocardial perfusion stress test did not identify patients who were at an increase risk of ischemic events.

Of the 522 asymptomatic patients screened, 409 (78%) had normal results, 50 (10%) had a small perfusion defect, and 33 (6%) had moderate or large perfusion defects. Although there was no significantly increased risk of cardiac

events in patients with small defects when they were compared with those who had no perfusion defect, there was a sixfold increase risk in patients with moderate to large defects on myocardial perfusion imaging. Only 4.4% of patients went on to angiography, a decision driven by the clinical judgment of the patient's physician.

Of course, in my example, the greatest pressure for angiography came from the patient's wife, who was convinced that on the basis of conventional wisdom, myocardial perfusion imaging-guided PCI would identify a critical lesion that, when treated with PCI, would prolong her husband's life. And as a matter of fact, in order to prove the absence of coronary artery disease based on the normal perfusion test, I agreed to arrange an angiogram should they need reassurance that the test was normal. What would have eventuated should we have found a lesion remains for your conjecture.

But it is clear that there is an overabundance of angiograms being performed in asymptomatic patients, which more than likely leads to the performance of unnecessary PCIs in asymptomatic patients. Angiography has become the "carpenter's hammer," with the little regard for its benefit.

A more reasonable and effective approach to diabetes patients (as well as other asymptomatic patients) is the institution of adequate primary prevention, which has been shown to have both morbidity and mortality benefits. ■

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A recent report by Dr. William B. Borden and colleagues (JAMA 2011;305:1882-9) examined the change in clinical practice in regard to percutaneous coronary intervention before and after the report of the COURAGE trial 4 years ago (N. Engl. J. Med. 2007;356:1503-16), which indicated that there was no mortality or morbidity benefit in patients with stable angina who received PCI when compared to optimal medical therapy.

Dr. Borden and colleagues presumed that the results of the COURAGE trial would transform clinical practice, and that most of the 293,795 patients in their study who went on to PCI in the COURAGE-like population would receive optimal medical therapy before PCI.

In fact, optimal medical therapy (defined as therapy with aspirin, a beta-blocker, an ACE inhibitor, and a statin) was used in 43.4% of the patients before COURAGE and in 45.0% after the COURAGE report. In COURAGE, 32% had diabetes, 12% of the patients were asymptomatic, and 30% had class I angina.

In the most recent analysis by Dr. Borden, one-third of patients (more than 70,000) had no angina prior to PCI. One must wonder what the perceived patient benefit was that led to the performance of a PCI in those patients.

My patient's other cardiologist advised angiography for my patient partly because of a concern for the early identification of ischemic heart disease in diabetic patients. Indeed, this concern had led the American Diabetes Association to recommend that in addition to standard secondary prevention therapy for both diabetes and coronary artery disease, patients with two or more risk factors for coronary artery disease undergo early screening (Diabetes Care 1998;13:1551-9).

These recommendations, however,

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POSTMASTER Send changes of address (with old mailing label) to CARDIOLOGY NEWS Circulation, 60 Columbia Rd., Bldg. B, 2<sup>nd</sup> fl., Morristown, NJ 07960.

CARDIOLOGY NEWS (ISSN 1544-8800) is published monthly by International Medical News Group, LLC, an Elsevier company, 60 Columbia Rd., Bldg. B, 2<sup>nd</sup> fl., Morristown, NJ 07960, 973-290-8200, fax 973-290-8250. Subscription price is \$114.00 per year.

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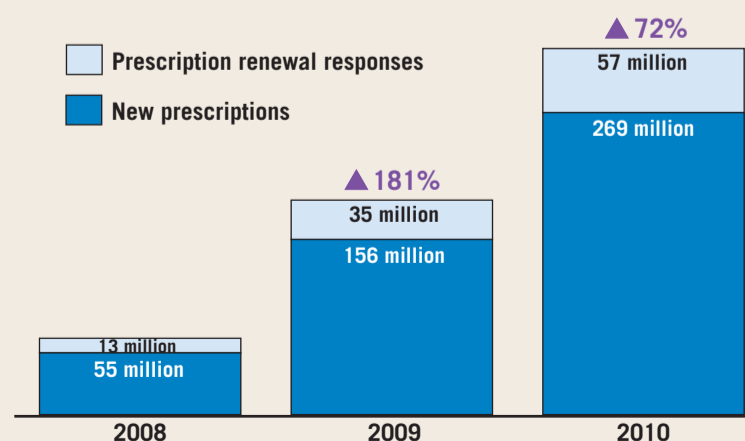


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Source: Surescripts