angiography before deciding on an aggressive therapy, and to avoid the automatic use of thrombolytic therapy, Dr. Elkayam said.

Many of the women in the current review, especially those who did have atherosclerotic disease, had the same risk factors for AMI as older nonpregnant populations. Despite the relatively young ages of the women, risk factors for AMI were fairly common. Overall, 45% of the women were smokers, 24% had hyperlipidemia, 22% had family histories of MI, 15% had high blood pressure, and 11% had diabetes.

Treating MI risk factors in pregnant women remains a challenge because the drugs that clinicians use are potentially risky to the mother, fetus, or both.

"One of the problems is that pregnant women are always excluded from trials," Dr. Elkayam said. "So we are somewhat limited, and we must consider true benefit vs. potential risk."

Because clinicians are treating two patients—mother and fetus—they need to make medication decisions wisely. "Sometimes we may have to use the therapy if the patient is at high risk," he said. (See box, page 18.)

Several techniques for evaluating possible AMI in nonpregnant patients are safe for pregnant women, with modifications as necessary based on concerns for fetal safety and factors associated with normal pregnancy. Safe choices include an echocardiogram and exercise testing, but radiation exposure should be limited.

Cesarean delivery is not mandatory for women with AMI. Although an elective cesarean section avoids the risks associated with a long labor, a vaginal delivery reduces the risks associated with anesthesia. The investigators recommended instrumental vaginal delivery to reduce labor time and maternal effort. Of the 103 AMI patients in the current review, only 10 had cesarean deliveries. ■

Treat Women With NSTEMI Conservatively

BY MARY ANN MOON
Contributing Writer

Compared with conservative management, invasive treatment of unstable angina with non–ST-segment elevation myocardial infarction does not benefit women who show no elevation of biomarkers of necrosis, according to a meta-analysis of eight clinical trials.

Moreover, invasive therapy potentially increases the risk of death or subsequent MI in this group of low-risk women with NSTEMI, reported Dr. Michelle O'Donoghue of Brigham and Women's Hospital, Boston, and her associates.

In contrast, invasive therapy does benefit women who have unstable angina with NSTEMI who show elevated biomarkers of necrosis, and their benefit is comparable with that of men with NSTEMI, the meta-analysis shows.

These findings support the recently updated American College of Cardiology/American Heart Association guidelines "that now recommend a conservative strategy be used in low-risk women with NSTE ACS [non–ST-elevation acute coronary syndromes]," Dr. O'Donoghue and her associates said.

The investigators undertook a meta-analysis of the issue because "individual trials have not been large enough to explore outcomes reliably within subgroups," and previous analyses have yielded disparate results. The meta-analysis included 10,412 patients randomly assigned to receive conservative or invasive treatment for NSTE ACS.

"Among women with an elevated cardiac biomarker, an invasive strategy significantly decreased the odds of death, MI, or rehospitalization with ACS by 33%, which was comparable with the benefit observed overall in men," the researchers said (JAMA 2008;300:71-80).

"In contrast, women without biomarker elevation did not appear to have a significant benefit from an invasive strategy and had a nonsignificant higher odds of death or MI compared with those treated conservatively," they noted.

For both men and women, those randomly assigned to an invasive strategy had a higher rate of death or MI before hospital discharge than did those randomly assigned to conservative management, but after discharge, showed a significant reduction in death or MI rates.

"We also observed that women are significantly less likely than men to have obstructive CAD [coronary artery disease] at the time of angiography, despite a clinical presentation consistent with NSTE ACS. Overall, 24% of women randomized to an invasive strategy had no evidence of significant epicardial CAD at angiography, vs. only 8% of men" Dr. O'Donoghue and her associates added.

These results "emphasize the need for larger prospective trials to specifically examine the benefit of an invasive strategy in women," they noted. ■