Pheochromocytoma Oft Mistaken for Preeclampsia

Testing for urinary metanephrines had the greatest diagnostic sensitivity in cardiovascular event patients.

By Elizabeth Mechcatie
Senior Writer

Bed Rest for Hypertension in Pregnancy: Evidence is Weak

By Robert Finn
San Francisco Bureau

A thorough physicians have long recommended bed rest or restricted activity for pregnant women with hypertension, a systematic review of available studies found only weak evidence that this practice benefits women or their children.

In the review, published by the Cochrane Collaboration, Dr. Shireen Meher of the University of Liverpool (UK), and colleagues were able to identify only four studies involving a total of 449 women that met their criteria. Their conclusion, based on a literature review of more than 100 cases, also found that maternal morbidity is high when diagnosis is delayed, said Dr. Timmers, of the department of endocrinology, Radboud University Nijmegen Medical Center, Nijmegen, the Netherlands.

Chronic hypertension affects an estimated 1:50,000 full-term pregnancies and is associated with high maternal and fetal morbidity and mortality. Pheochromocytoma during pregnancy is often missed because it can mimic preeclampsia, delaying diagnosis and appropriate treatment, Dr. Timmers noted.

He and associates found a total of 174 reports of histology-confirmed cases of pheochromocytoma during pregnancy, in a PubMed database search for case reports in English. The mean age of the women was 28 years, 7% had previously been diagnosed with pheochromocytoma and 17% had been previously diagnosed with hypertension; 61% had been pregnant before and 14% had been previously diagnosed with pregnancy-induced hypertension.

In 73% of cases, the diagnosis of pheochromocytoma was made in the hospital, with the remainder diagnosed postpartum (17%) or postmortem (10%).

Nearly 90% of the patients were hypertensive, but in only 42% of the cases was presentation typical for pheochromocytoma, where hypertension is usually accompanied by headache, palpitations, or sweating. In 25% of the cases, presentation was a hypertensive emergency, which included cases of severe pulmonary edema, he said.

In 31% of the cases, the initial diagnosis was incorrect, with almost half of the incorrectly diagnosed patients presenting with a severe cardiovascular complication; of these 24 patients, 10 patients died. Fetal and neonatal mortality was 22%. Overall maternal mortality was about 14%, but it was markedly higher in different subgroups. It was 38% among the women who were incorrectly diagnosed and 49% among those with a cardiovascular emergency.

The biochemical test with the greatest diagnostic sensitivity in this population was urinary metanephrines, with a sensitivity of 98%; the lowest sensitivity was for plasma catecholamines (91%). The sensitivity of MRI was 95%. Surgeries were performed in 69 of these patients, either before 24 weeks gestation or during a cesarean section; in 68 patients, surgery was performed post partum.

During the discussion period, moderator Dr. William Manger, of New York University and the chairman of the National Hypertension Association, New York City, said that pheochromocytoma, though rare, is an important condition and should be routinely considered in pregnant women with hypertension.

CVD Risk Elevated in Women With Placental Syndromes

By Mary Ann Moon
Contributing Writer

Women who have placental syndromes are at high risk for premature cardiovascular disease, particularly if there is associated fetal compromise, according to Dr. Joel G. Ray, of the University of Toronto, and his associates.

The level of cardiovascular risk that is conferred by a placental syndrome—preeclampsia, gestational hypertension, placental abortion, or placental infarction—is comparable with that of such conventional risk factors as hypertension, obesity, diabetes, and dyslipidemia.

“We believe that maternal placental syndrome should be considered an additional risk factor for cardiovascular disease in women, especially when the woman’s fetus is adversely affected,” Dr. Ray and his associates said (Lancet 2003;366:1797-803).

They assessed cardiovascular outcomes in a population-based study of Ontario residents who gave birth between 1990 and 2004. The mean gestational age at delivery was 28 years. Of the 1,026,265 subjects, 75,380 (7%) were diagnosed as having a placental syndrome.

After a mean of 8.7 years’ follow-up, cardiovascular events occurred in more than twice as many women with placental syndromes as in women without placental syndromes, irrespective of the presence of potential confounders such as diabetes.

The rate of events was 500/million person-years among those with placental syndromes, compared with 200/million in those without placental syndromes.

The women’s mean age was 38 years at the time of the first cardiovascular event. They included coronary, cerebrovascular, or peripheral artery events, or the need for a revascularization procedure.

The risk for cardiovascular events was even higher if the placental syndromes led to fetal growth restriction or intrauterine fetal death. It was higher still in women who had preexisting cardiovascular risk factors when they became pregnant, such as smoking or various features of the metabolic syndrome.

The findings do not imply that placental disorders cause cardiovascular events to occur in the near future, the investigators cautioned.

“Rather, a more plausible explanation relates to a woman’s abnormal metabolic milieu that predates her pregnancy and continues after delivery. This chronic state of dysmetabolism might create an inhospitable environment during the development of the placental spiral arteries, which can adversely affect fetal health, while negatively affecting the large arteries of a woman’s heart, brain, and extremities over a broader period of time,” researchers noted.

Physicians “should try to ensure that women are a healthy weight before they enter their reproductive years.”

This should reduce their risk for placental syndromes and fetal compromise as well as for cardiovascular disease, Dr. Ray and his associates said.

It remains unknown whether women who have had placental syndromes might be able to lower their risk of premature cardiovascular disease by making lifestyle modifications, they added.