



Ronald T. Burkman, MD

Hypertensive Disorders in Pregnancy—A Continuing Problem

For about 100 years, there has been a plaque at the University of Chicago's Lying-in Hospital reserved for the individual who discovers the cause of preeclampsia. Although there was a brief flurry of excitement with the finding in the early 1980s of the "Hydatoksi lualba parasite" in blood specimens of women with preeclampsia,

eclampsia, along with the other hypertensive disorders in pregnancy, remains a leading cause of morbidity and mortality worldwide. For example, hypertensive disorders in pregnancy are the second leading cause of maternal mortality, according to World Health Organization statistics, a problem particularly acute in less developed countries where ac-

ber of worrisome trends and statistics related to this issue that Dr Martin pointed out in his presidential address at the ACOG meeting in May of this year. The incidence of preeclampsia in the United States is actually on the increase likely due, at least partially, to the presence of comorbidities such as obesity, diabetes, and chronic hypertension. For every maternal death caused by preeclampsia in the United States, there were also about 50 women suffering some type of major, life-threatening morbidity. The disorder also is a significant contributor to iatrogenic prematurity due to the need for early delivery to reduce the risk of complications to the mother and fetus.

So what can we do as practicing obstetricians? Ideally, we would like to come up with a reasonable approach to prevention. Unfortunately, until more is known about the etiology of this disorder, little can be done in this regard.

Early diagnosis would also be helpful since it would lead to increased surveillance for potential complications. For example, there is some data to indicate that women who are destined to develop

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the excitement over the possibility that the cause of this disorder was now known was short-lived. A subsequent investigation determined that the parasite was most likely an artifact formed from fibers from cotton swabs used to clean the glass slides displaying the "parasite!"

Regardless of the etiology, pre-

cess to care can be limited.

This year, as one of his ACOG presidential initiatives, Dr James Martin is assembling a task force to evaluate our current state of knowledge of hypertensive disorders in pregnancy and to make recommendations for practice guidelines and priority areas for future research. There are a num-

preeclampsia produce higher concentrations of a wide variety of substances, including prostanooids and antiangiogenic proteins, weeks or even months before the onset of clinical disease. Thus, if supported by prospective studies, screening for these substances may allow early detection of women who will develop this disorder. Once detected, the next challenge is to determine which women will only develop a mild form of the disorder and which will fulminate and develop severe preeclampsia.

For clinicians in the trenches, there is a pressing need for guidance regarding the most cost-effective approach to managing both types of patients. For example, when should antihypertensive medications be initiated?

How should women undergoing expectant management be monitored? With severe preeclampsia, what criteria need to be met to consider induction as opposed to cesarean section? What criteria need to be met to manage women on an outpatient basis? Another challenge for physicians is to determine if their labor and delivery unit is able to effectively manage a complication such as eclampsia.

One approach to assess readiness and make modifications to processes, if necessary, is to utilize an in situ simulation on the unit. This process also serves to train new care providers who may be less familiar with the management of such emergencies. Obviously, taking on these problems and coming up with useful solu-

tions will be challenging. However, given the frequency of pregnancy-related hypertension and the known complications, it is a challenge well worth taking.



Ronald T. Burkman, MD
Editor-in-Chief

Suggested Reading

WHO/UNICEF/UNFPA/World Bank. *Trends in maternal mortality: 1990 to 2008*. Geneva, World Health Organization, 2010.

Paxton A, Wardlaw T. Are we making progress in maternal mortality? *N Engl J Med*. 2011;364(21):1990-1993.

Martin JN. Take the high road and choose to dance. *Obstet Gynecol*. 2011;117(6):1268-1271.

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