Hormone Combo Cuts Blood Pressure, Hot Flashes

BY FRAN LOWRY
Orlando Bureau

WASHINGTON — The combination of drospirenone (a progestin with antialdosterone effects) and 17-β-estradiol as hormone therapy for hypertensive postmenopausal women not only reduces their hot flashes, but lowers their blood pressure as well, according to a poster presented at the annual meeting of the American College of Obstetricians and Gynecologists.

Treatment with the combination of drospirenone and 17-β-estradiol for an 8-week period produced significant reductions in systolic and diastolic 24-hour ambulatory and clinic blood pressure at 2- and 3-mg doses of drospirenone, reported Dr. William B. White, professor of medicine at the University of Connecticut, Farmington.

Drospirenone plus estradiol has been used for the treatment of menopausal symptoms and is Food and Drug Administration–approved for this indication at a dose of 0.5 mg drospirenone/1 mg estradiol (marketed in the United States as Angeliq by Berlex Laboratories Inc.). During its development, it was noted that at a higher drospirenone dose, the combination also had antihypertensive properties. It is currently being used in Europe, Asia, and the rest of the world at a dose of 2 mg drospirenone/1 mg estradiol, Dr. White told this news organization.

In a multicenter (42 U.S. centers and 22 European centers) trial, Dr. White and his colleagues evaluated the blood pressure–lowering efficacy of various doses of drospirenone (1, 2, or 3 mg) combined with 1 mg of estradiol in 750 postmenopausal women aged 45-75 years, with an untreated systolic blood pressure of 140-179 mm Hg and untreated diastolic blood pressure of 90-109 mm Hg. They also evaluated estradiol alone to elicit data on the effects of estrogen on ambulatory blood pressure, about which little is known, wrote Dr. White.

In addition, because drugs which induce aldosterone blockade have been shown to increase serum potassium, the researchers evaluated the metabolic effects of the combination therapy.

Following a single-blind, placebo phase for 3-4 weeks to establish baseline blood pressure and laboratory values, the women were randomized to one of the three combination treatment arms, to estradiol alone, or to placebo. Twenty-four–hour ambulatory blood pressure monitoring was done at baseline and at 8 weeks.

Drospirenone at the 2-mg dose reduced clinical systolic and diastolic blood pressures by a mean of 12.1 and 9.2 mm Hg, respectively; and by a mean of 13.8 and 8.5 mm Hg, respectively at the 3-mg dose. Drospirenone at the 1-mg dose was less effective, reducing systolic BP by a mean of 9.8 mm Hg and diastolic BP by a mean of 7.0 mm Hg. The blood pressure–lowering effect of estradiol (–7.6 mm Hg systolic and –5.9 mm Hg diastolic) was similar to that seen with placebo, Dr. White wrote.

Reductions in ambulatory blood pressure showed findings similar to clinic readings, although the combination with 1 mg of drospirenone also had marginal benefits compared with placebo and estradiol alone, he added.

Changes in potassium levels were similar in all groups: Five patients in each of the drospirenone groups and five in the placebo group developed a serum potassium less than or equal to 5.5 mEq/L. The mean maximal change from baseline in drospirenone-treated patients was not significantly different among the five treatment groups and ranged between 0.29 mEq/L and 0.37 mEq/L.

Regarding the combination's effect on lipid levels, total and LDL cholesterol levels also were lowered significantly in women taking drospirenone and estradiol, with a 13.6-mg/dL drop in LDL cholesterol at the 3-mg dose, a 10.4-mg/dL drop at the 2-mg dose, and a 12.2 drop at the 1-mg dose. Triglyceride levels were not affected, Dr. White wrote.

Side effects varied according to drospirenone dose; those seen with a frequency greater than 2% included breast discomfort, vaginal bleeding or spotting, and upper respiratory infection, according to the researchers.

"This is a novel progestin which actually impacts upon aldosterone and therefore has a dose-related reduction in blood pressure—especially the systolic blood pressure—which is associated with cardiovascular risk. We actually studied a full spectrum of doses, along with estradiol alone and placebo, so the strength of the study is that we actually had these two control groups showing that, in fact, it was the drospirenone that was the important component that lowered the blood pressure. And it did that without any significant metabolic consequences," Dr. White said in an interview. Dr. White disclosed that he serves as a consultant for Berlex Laboratories Inc., which markets Angeliq, as well as other pharmaceutical companies. ■

ACOG Advises Initial Ob.Gyn. Visit for 13- to 15-year-olds

BY MARY ELLEN SCHNEIDER
Senior Writer

WASHINGTON — Teenage girls should have their first visit with an ob.gyn. between the ages of 13 and 15, according to a recommendation from the American College of Obstetricians and Gynecologists.

This initial visit should be focused on preventive services and education, and may include a discussion on topics such as adolescent development, normal menses, sexual orientation, healthy eating, injury prevention, and prevention of pregnancy and sexually transmitted diseases, according to an opinion from the ACOG Committee on Adolescent Health Care (Obstet. Gynecol. 2006;107:1215).

"The goal of this key visit is to help teens identify an ob.gyn. and then get acquainted with their ob.gyn. before they need to seek care for a specific health issue," Dr. Marc R. Laufer, chief of gynecology at Children's Hospital Boston, said at the annual meeting of the American College of Obstetricians and Gynecologists. Dr. Laufer is the immediate past chair of the ACOG Committee on Adolescent Health Care.

Officials at ACOG have been advocating for an initial reproductive health visit around age 13-15 years for a number of years, but the new committee opinion provides details on what topics should be included in the visit and coding suggestions for payment of the visit.

The initial visit does not need to include an internal pelvic exam and may not even include a physical exam, Dr. Laufer said. An "age-appropriate pelvic examination" can be performed if problems are identified during the medical history such as abnormal menstrual bleeding or pelvic pain, according to the committee opinion. In cases where a speculum or bimanual exam is needed, physicians should first give the patient a full explantation of the exam and obtain consent.

The initial visit is generally more of an "information session," Dr. Laufer said. For example, the visit is a chance for teens to get a better understanding of normal development and menstruation. It also is an opportunity to talk about issues that may need early intervention such as weight and body image, blood pressure problems, mental health problems, and physical and sexual abuse.

This initial visit opens discussion about family history with teens. For example, physicians can provide information about the impact of a family history of polycystic ovarian syndrome, endometriosis, or familial gynecologic malignancies, Dr. Laufer said.

The widespread acceptance of this routine health visit will give teens a way to get answers to questions that they may be too embarrassed to bring up with parents, friends, or a primary care physician, Dr. Laufer said.

But the initial visit to the ob.gyn. is not meant to replace the role of the primary care physician. It is meant to be a complement to that care, said Dr. Laufer.

But how this care is provided will be physician dependent, he said. In many cases, the primary care physician and the ob.gyn. each would be handling somewhat different aspects of preventive health.

However, some gynecologists are taking on the full role of preventative health care and vaccination, and some family physicians are more active in counseling on reproductive issues. ■

One-Fourth of Primigravidas Suffer Levator Ani Injury

TUCSON, ARIZ. — One woman in four suffers neuropathic injury to the levator ani with her first delivery, according to a novel study that used pre- and postpartum concentric needle electromyographic examinations to study muscle function.

Cesarean sections performed during labor were not protective in the study conducted by Dr. Alison C. Weidner and her associates at Duke University Medical Center and presented at the annual meeting of the Society of Gynecologic Surgeons.

Initial EMG studies were performed on 58 primiparous women during the early third trimester, providing baseline data on muscle function at four separate sites of the levator ani. A quantitative amplitude analysis provided data on muscle function at rest and during moderate and maximum voluntary contractions.

Information was collected on the subjects' labor and delivery patterns, and follow-up examinations were performed 6 weeks and 6 months post partum. The mean age of the subjects was 29 years, and their mean body mass index was 25 kg/m^2.

Evidence of neuropathic injury was seen in 14 (24%) of 58 subjects at the 6-week examination and 17 (29%) of 58 at the 6-month examination, said Dr. Weidner, chief of the division of urogynecology at the Durham, N.C., institution. Some women who demonstrated neuropathic injury at 6 weeks were normal by 6 months, while a few who seemed normal at 6 weeks showed evidence of injury at 6 months.

Dr. Weidner said patterns of muscle recruitment in women who exhibited injury only at 6 months suggest that muscle atrophy takes time, and that the full extent of damage was not clear at the 6-week visit.

"My point is that all of the patients who had this pattern were actually suffering levator injury at the time of delivery," although it could not be measured initially, she explained.

A close look at obstetric variables revealed findings that Dr. Weidner called "striking."

For example, the 11 women who underwent a C-section during labor suffered injury rates equivalent to those seen in the 36 women who had spontaneous vaginal deliveries and nearly as high as the 8 who had operative vaginal deliveries.

Only the three women who had elective C-sections seemed to be spared significant levels of injury, with just one woman showing injury at one of the four levator ani sites measured at 6 months post partum.

That C-section was not protective in the context of labor surprised Dr. Weidner, since only 2 of those 11 patients progressed far enough in labor to push.

In addition, a shorter duration of epidural analgesia during labor and operative vaginal delivery were independently associated with a higher rate of injury in a logistic regression analysis.

—Betsy Bates