ASA-LMWH Aids Those Who've Had Preeclampsia

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VIENNA — The use of low-molecular-weight heparin together with low-dose aspirin can improve pregnancy outcomes in women who previously had preeclampsia and low-birth-weight infants, Sergio Ferrazzani, M.D., reported.

Women with preeclampsia and low-birth-weight infants in their first pregnancy have double the recurrence rate of preeclampsia in their second pregnancy, compared with women who did not have preeclampsia previously. Infants of those subsequent pregnancies are at increased risk for fetal growth restriction and low birth weight. Data suggest that preeclampsia and fetal growth restriction might share one or more pathophysiologic mechanisms, said Dr. Ferrazzani of the Catholic University of the Sacred Heart, Rome.

An electronic database search of records from his hospital's high-risk pregnancy ward yielded data on 54 women with previous preeclampsia associated with low birth weight and/or intrauterine growth retardation who were negative for antiphospholipid antibody. The women had not been treated with aspirin during a previous pregnancy, he said at the 14th World Congress of the International Society for the Study of Hypertension in Pregnancy.

Of those 54 women, 23 gave birth during 1990-1996, when hospital policy called for thromboprophylaxis with low-dose (100 mg/day) aspirin alone (ASA); the 31 women who delivered during 1997-2003 were treated with the same daily dose of aspirin plus low-molecular-weight heparin (4,000 units subcutaneous enoxaparin).

Aspirin was prescribed from the 22nd day of the menstrual cycle and discontinued after 36 weeks' gestation. The low-molecular-weight heparin (LMWH) was prescribed after confirmation of a positive pregnancy test and continued until delivery.

The women were similar with regard to demographic and anthropomorphic characteristics. About 20% of the women in each group had chronic hypertension, and almost as many (17% in the ASA alone group and 19% in the ASA-LMWH group) had more than one previous pregnancy complicated by preeclampsia.

Gestational age at delivery of the treated pregnancy was higher in both groups, compared with the women's first pregnancies, but the improvement was greater for those in the ASA-LMWH group. The increase was 32.1 vs. 34.8 weeks for women treated with ASA alone, compared with 30.9 vs. 36.4 weeks for women treated with ASA-LMWH.

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Similarly, the proportion of women with small-for-gestational-age fetuses, which was 100% among all the first pregnancies, dropped to just 35% with ASA treatment alone and 16% with ASA-LMWH treatment. Both groups showed a birth weight improvement, but the ASA-LWMH group's increase was nearly double that of the group treated with ASA alone (1,372 g vs. 2,017 g in the ASA group and 1,197 g vs. 2,600 g in the ASA-LMWH group).

In both groups, there were six intrauterine deaths among the first pregnancies and none in the treated pregnancies. Neonatal deaths fell from 6 to 3 with ASA and from 11 to 1 with ASA-LMWH. Only the ASA-LMWH drop was statistically significant.

Preeclampsia (in 100% of all the first pregnancies) occurred in 30% of the subsequent ASA-treated pregnancies, compared with just 3% of pregnancies treated with both ASA and LMWH.

Among the 11 patients with chronic hypertension, the mean gestational age at delivery and the mean birth weight were also significantly greater among the infants of the 6 patients from the ASA-LMWH group, compared with those of the 5 ASA patients, Dr. Ferrazzani added.

None of the women treated with ASA-LMWH developed heparin-induced thrombocytopenia or thrombotic episodes, and there was no clinical evidence of heparin-induced osteoporosis. Mild bruising at the injection site—which was considered to be confirmatory of self-administration of the anticoagulant—was the only complication noted with heparin therapy. ■