Prevent Preeclampsia

Vitamins C, E Fail to Prevent Preeclampsia

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DALLAS — Supplementation with vitamins C and E did not prevent preeclampsia, reduce its severity, or lower adverse neonatal outcomes in a World Health Organization randomized trial of 1,367 high-risk women.

The observed negative results are consistent with those of most previous antioxidant trials, although none of the previously reported adverse effects, such as earlier and more severe preeclampsia or reduced birth weight, were observed in the current trial, Dr. Mario Meridadi said at the annual meeting of the Society for Maternal-Fetal Medicine.

“We found no evidence of harm to either mother or fetus attributable to supplementation with vitamin C and E,” he said.

Still, lead investigator Dr. Jose Villar, a senior fellow in perinatal medicine at the University of Oxford (England), advised caution. “It is always of concern to give ineffective drugs to pregnant women, even if one study does not demonstrate harm,” he said in an interview.

The recent VIP (Vitamins in Preeclampsia) trial showed that concomitant vitamin C and E supplementation did not reduce preeclampsia among 2,395 women at risk, but did increase the rate of babies born with a low birth weight (Lancet 2006;367:1145-54).

The WHO trial parallels the VIP trial, which was not powered to test this outcome, said Dr. Meridadi, who reported no financial conflicts of interest.

The secondary outcomes of low birth weight, small size for gestational age, and preterm delivery trended lower with supplementation, but were not statistically different.

I n December 2001, the Food and Drug Administration placed a black box warning on droperidol (Inapsine) because of concerns about QT prolongation and torsades de pointes.

This action took the medical and pharmacy communities by surprise and created tremendous controversy. Although the labeling information always had contained warnings of serious and even life-threatening arrhythmias, droperidol had a 30-year history of safe and effective use in a wide range of patients.

Since its release in 1970, droperidol had been one of the preferred antiemetics for the prevention and treatment of postoperative nausea and vomiting (PONV) and also had been used to treat hyperemesis gravidarum (HG). But the FDA’s action resulted in a marked decrease in its use for both these indications.

In the early 1990s, manufacturing problems caused the availability of the other preferred antiemetic for these indications, parenteral prochlorperazine.

With no other viable alternatives, there was a large increase in the use of ondansetron (Zofran), which was expensive at the time, but is now available as a generic.

What remains unresolved is the use of droperidol in these situations, where it is the preferred agent for PONV, including after cesarean section, and for HG.

Several small studies that compared droperidol and ondansetron for PONV found no differences between the two in terms of efficacy and toxicity.

However, a large study with more than 2,000 subjects concluded that droperidol (1.27 mg IV) was superior to ondansetron (4 mg IV) for both vomiting and nausea (Anesth. Analg. 1999;86:731-8).


None of the above studies found any evidence that droperidol was related to torsades de pointes.

A 2005 study of droperidol (0.625-1.25 mg) for antiemetic prophylaxis during general anesthesis in outpatient surgery observed no significant increase in the corrected QT (QTc) interval, compared with saline (Anesthesiology 2005;102:1101-5).

A French study the same year observed QTc prolongation after IV bolus doses of droperidol (0.75 mg) and ondansetron (4 mg) for PONV shortly after surgery. Before antiemetic administration, however, 21% of the patients had a prolonged QTc interval that was significantly correlated with lower body temperature and a longer duration of anesthesia. The mean maximal prolongation for droperidol and ondansetron was 17 milliseconds and 20 milliseconds, respectively, with the interval significantly lower after 90 minutes for both drugs.