Most Hormonal Contraception Effective in Obese

BY ROBERT FINN

SAN FRANCISCO — Oral contraceptives provide effective birth control in very heavy or obese women, but "OCs are less forgiving of imperfect use among" this population, according to James Trussell, Ph.D., director of the office of population research, Princeton (N.J.) University.

Speaking at a conference on contraceptive technology sponsored by Contemporary Forums, Dr. Trussell said that he based his conclusions on his analysis of the shortcomings of the data from two studies by Victoria Holt, Ph.D., professor of epidemiology at the University of Washington School of Public Health, Seattle. Dr. Holt's studies have formed the basis of the conventional wisdom that OCs fail more often in heavy women.

Findings from the first of her studies, which was a retrospective cohort analysis of 755 HMO enrollees, showed that there was a 60% increase in the risk of OC failure in this population, who were of reproductive age and weighed at least 70.5 kg. That risk was especially high for low-dose and very low-dose formulations, with increases in risk of 2.6-fold and 4.5-fold (Obstet. Gynecol. 2002; 99[pt. 1]:820-7).

Dr. Holt's second study was a case-control study with 248 cases and 538 age-matched controls (Obstet. Gynecol. 2005;105:46-52). This study did not find a significant increase in the risk of contraceptive failure among all women in the highest-weight quartile, but it did find a statistically significant 70% increase in risk among consistent OC users weighing 75 kg or more. The increase in risk was also significant among all women in the highest BMI quartile (1.6-fold) and in consistent OC users in the highest BMI quartile (2.2-fold).

Findings from six other studies found no association between high weight, BMI, and OC failure. Dr. Trussell conceded that all of the studies had limitations, and he said that the question was unlikely to be settled convincingly except in large prospective studies. Even then the question might never be answered for perfect use because it's difficult to assess adherence.

Even if the increases in relative risk found in the Holt studies prove to be reproducible, the absolute risk of failure is still likely to be modest, Dr. Trussell said.

"Beware of relative risk," he said. A 120% increase in the relative risk of contraceptive failure during perfect use implies an increase in the absolute risk of contraceptive failure only from 0.23% to 0.51%. A 60% increase in relative risk during typical use implies an increase in contraceptive failure from 8% to 12% during the first year, which is still lower than the failure rate of condoms.

There is little evidence that high BMI affects the failure rate of Implanon (etonogestrel) or Depo-Provera (medroxyprogesterone). But it's hard to draw a firm conclusion from this because there were no pregnancies at all in either product's clinical trials, whether the women were obese or not. Furthermore, the Implanon trials excluded women who were heavier than 130% of ideal body weight. New Food and Drug Administration rules require that drugmakers include obese women in contraceptive trials.

The situation with the contraceptive patch is different. Women weighing 80 kg or more have almost eight times the risk of contraceptive failure as do women weighing less, perhaps because of difficulties in hormone transit through subcutaneous fat, he said.

Whether hormonal contraception, which is reasonably effective in obese women, is also safe is another question. Several studies have made it clear that obesity by itself is a risk factor for pulmonary embolism and for deep venous thrombosis, with fivefold increases in risk. Oral contraceptives further increase the effect of obesity on deep venous thrombosis.

A study of OC safety in women with a BMI over 40 has never been done. There's only one study in the literature of women in the BMI category of greater than or equal to 35.

Dr. Trussell said he had no conflicts of interest related to his presentation. Contemporary Forums and this news organization are both owned by Elsevier. ■