

Insulin Pump Tops Injections in Pregnant Diabetics

BY SHERRY BOSCHERT
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SAN FRANCISCO — Pregnant women with type 1 diabetes mellitus were more likely to improve glycemic control and less likely to deliver by cesarean section if they used insulin pumps rather than self-injections of insulin, Dr. Yvonne W. Cheng said.

Among 60 women in the pump group, 25% had hemoglobin A_{1c} (HbA_{1c}) values

below 6%, compared with 13% of 628 women in the injection group of a retrospective cohort study, she reported in a poster presentation at the annual meeting of the Society for Maternal-Fetal Medicine.

Half of women in the pump group delivered by C-section, compared with a 63% C-section rate in the injection group, said Dr. Cheng of the University of California, San Francisco, and her associates.

After controlling for the effects of maternal age, parity, ethnicity, body mass index, gestational weight gain, and gestational age at enrollment in the California Diabetes and Pregnancy Program, women in the pump group were three times as likely to have HbA_{1c} values below 6% and were half as likely to have a C-section, compared with the injection group.

The conclusions support results from one previous study in 2004 that found im-

proved glycemic control with use of an insulin pump instead of injections by pregnant women with type 1 diabetes mellitus.

Three other studies in 1988, 2000, and 2005 found no significant differences in results among groups, she noted.

All the previous studies were smaller than the present study, with only 11-36 patients in the pump groups.

The current study also found that women in the pump group were more likely to be white, to speak English as their primary language, and to have a higher education level than did women in the injection group.

"We need to address the disparity of insulin pump use in type 1 diabetes mellitus patients of different socioeconomic and racial/ethnic groups," the authors commented.

In terms of rate of preterm delivery, rate of large-for-gestational-age babies, or rate of admissions to intensive care nurseries, the researchers found that there were no differences between the pump and injections groups.

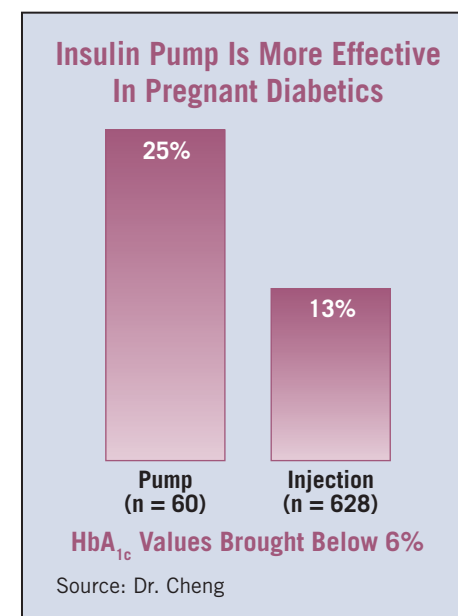
"In nonpregnant diabetics, most people are switching over to pumps" because studies have shown better glycemic control, Dr. Cheng said in an interview at her poster.

The pump provides continuous release of insulin, functioning more like the pancreas than do timed injections of insulin.

In order to be candidates for insulin pumps, women must be able to count carbohydrates, operate the machine, and program it.

"It's a very select group of women," she said.

Dr. Cheng disclosed that she has no association with companies that make either insulin pumps or injection products.



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