THE EFFECT OF BMI ON UNINTENDED PREGNANCY RATES AMONG USERS OF COMBINED ORAL CONTRACEPTIVES

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Objectives: We aimed to determine if the Pearl Index of combined oral contraceptives differs by BMI.

Methods: We conducted a meta-analysis of five prospective, observational cohort studies with primary endpoints of venous thromboembolism (VTE) among women using combined oral contraceptives. Studies were conducted between 2007 and 2016 using a similar methodology. In sum, 246,209 women and 382,789 women–years were included. Women were followed for 3–5 years. The inclusion criterion was prescription of a new combined oral contraceptive. Studies were conducted across Europe and the United States. Results were analyzed within four age groups:

- less than 35 kg/m² and 35 kg/m² or higher (US studies)
- less than 30 kg/m² and 30 kg/m² or higher (Europe)

The Pearl Index was calculated within each age and BMI category stratified by region. Significance of factors was tested in a stratified Cox regression model; age and BMI were included as continuous variables.

Results: In the United States, the Pearl Index ranged from 0.15 (age 40+, BMI<35) to 4.12 (age <25, BMI ≥35) with higher values observed among women with BMI 35 kg/m² or higher within each age group. Significance (p=0.0001) of the occurrence of an unintended pregnancy was observed in both factors when simultaneously included in a Cox regression model.

In the European sample, the Pearl Index ranged from 0.06 (age 40+, BMI<35) to 0.80 (age <25, BMI ≥30). Cox regression showed independent effects of age (p<0.0001) and BMI (p=0.0003) on the occurrence of an unintended pregnancy.

Conclusions: BMI has a significant effect on the Pearl Index of combined oral contraceptives. Increasing BMI decreases the efficacy of combined oral contraceptives in Europe and the United States.

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UNWANTED PREGNANCIES AMONG WOMEN USING INTRAUTERINE DEVICES: FINAL RESULTS FROM THE EURAS-IUD 5-YEAR STUDY

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Objectives: Intrauterine devices (IUDs) are a widely used method and have shown high contraceptive efficacy in clinical trials. The primary objective of the analysis is to determine the rate of unwanted pregnancies among women using IUDs and to describe associated complications.

Methods: We conducted a large, comparative, multinational, prospective, noninterventional cohort study with new users of LNG-IUDs and copper IUDs. The combined cohort included more than 60,000 women in six European countries. The study was conducted from 2006 to 2015. The women received a follow-up questionnaire 12 months and 5 years after enrollment. All patient-reported outcomes of interest were validated with the treating physicians. The analysis was based on Cox regression models comparing the cohorts.

Results: As of September 2015, a total of 58,324 women (70% used LNG-IUDs, 30% copper IUDs) had provided 133,015 women–years of exposure. A total of 175 contraceptive failures have been reported (41 LNG-IUD, 134 copper IUD), giving a Pearl Index of 0.04 for LNG-IUD and 0.4 for copper IUD. The hazard ratio adjusted for age, BMI and parity for LNG-IUD versus copper IUD was 0.16 (95% CI, 0.11–0.23). Some 33 pregnancies (13 LNG-IUD, 20 copper IUD) were ectopic pregnancies, giving an adjusted hazard ratio of 0.28 (95% CI, 0.14–0.58).

Conclusions: The contraceptive failure rate for both cohorts was low, and LNG-IUD had a significantly lower contraceptive failure rate than copper IUD. Physicians should consider the possibility of extrauterine gravida if they suspect a pregnancy during IUD use.

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BREASTFEEDING AND INFANT GROWTH PARAMETERS AMONG A PROSPECTIVE COHORT OF MALAWIAN WOMEN WHO UNDERWENT IMMEDIATE POSTPARTUM IMPLANT OR COPPER INTRAUTERINE DEVICE INSERTION

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