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TITLE

First Year Expulsion Rates and Timing in Obese and Non-Obese Women After Levonorgestrel 52 mg IUS Placement

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OBJECTIVE

Because obese women have higher expulsion rates than non-obese women with intrauterine contraceptive use, we investigated expulsion timing and rates in obese and non-obese women during the first year after levonorgestrel 52mg intrauterine system (IUS) placement.

METHODS

We evaluated data from the ongoing 10-year Phase 3 Liletta® study in which 1,714 women aged 16-45 years received an IUS. During the first year, subjects had follow-up visits at 1, 3, 6 and 12 months. For this analysis, we only included women with a known BMI and at least one 28-day cycle of follow-up. We evaluated expulsion rates and the proportions of expulsions that occurred each 30-days (last interval 35 days) in obese and non-obese women. We used Fisher exact testing for all analyses.

RESULTS

Over the first 365 days, expulsion occurred in 22/433 (5.1%) obese and 28/1277 (2.2%) non-obese women ($p=0.004$). Expulsion rates per interval were 0-1.0% in obese and 0-0.5% in non-obese women. The cumulative proportion of expulsions did not differ in any 30-day analysis intervals over the year. Cumulative expulsion rates were not higher in obese versus non-obese women at 30-days (13.6% and 25.0%, respectively, $p=0.48$), 60 days (18.2% and 25.0%, respectively, $p=0.73$), and 90 days (31.8% and 35.7%, respectively, $p=1.0$).

CONCLUSION

Obese women experience higher first-year expulsion rates than non-obese women with levonorgestrel 52mg IUS use. The proportion of expulsions that occur soon after placement is not higher in obese women, suggesting this higher rate is not related to placement issues.