Title

POSTER ABSTRACTS P55 PLASMA LEVONORGESTREL LEVELS FROM 72 TO 96 MONTHS IN OBESE AND NON-OBESE WOMEN USING A LEVONORGESTREL 52 MG INTRAUTERINE SYSTEM

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Conclusions: Cervical mucus of Cu-IUD users contained significantly higher Cu levels than nonusers. In cases of missing strings, a test that quantitatively or semi-quantitatively measures copper levels in cervical mucus could discriminate the presence or absence of a Cu-IUD.

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P52

POSTPARTUM INTRAUTERINE DEVICE INSERTION AFTER PERIPARTUM INFECTION

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Objectives: It is safe and effective for women to use an intrauterine device (IUD) for contraception after giving birth. IUDs are contraindicated following sepsis due to peripartum infection, due to a theoretical risk of pelvic infection. Provider comfort with inserting an IUD at the postpartum visit may vary if the patient had any peripartum infection, which creates potential for unintended and/or short-interval pregnancies.

Our objective was to assess the association between postpartum IUD insertion and pelvic infection in women with a peripartum diagnosis of chorioamnionitis or endometritis.

Methods: We conducted a retrospective observational study of deliveries at Kaiser Permanente Northern California from January 1, 2010 - December 31, 2019. We examined diagnostic billing codes for evidence of peripartum infection. IUD insertions less than or equal to six months after delivery were included. Multiple births in same delivery were counted once. Differences were assessed with the chi-squared and the t-test for categorical and continuous variables, respectively.

Results: There were 308,602 women with 410,681 deliveries over the 10-year study period. Among all deliveries, 31,790 (7.7%) women had a peripartum infection, and 68,971 (16.8%) women received a postpartum IUD. IUDs were placed in 6.8% of those who had peripartum infection and 7.9% of those without. After peripartum infection, subsequent pelvic infection was diagnosed in two cases (0.042%) in the IUD group while three cases (0.011%) were found in the non-IUD group.

Conclusions: A higher proportion of pelvic infection occurred in the IUD group when compared to the non-IUD group, however the occurrence of pelvic infection was extremely rare overall.

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P53

ASSESSING CONTRACEPTIVE USE DURING THE COVID-19 PANDEMIC AMONG PREVIOUS RECIPIENTS OF A NO-COST CONTRACEPTIVE INITIATIVE IN UTAH

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Objectives: To assess contraceptive needs and use during the COVID-19 pandemic among previous recipients of no-cost contraception.

Methods: This study surveyed HER Salt Lake participants in April and October 2020. Participants reported sociodemographics, contraceptive use, and COVID-related behavior change. We conducted paired comparisons of contraceptive use at 1-year pre-pandemic (via HER study) to reported use at COVID baseline. We conducted stepwise multivariable logistic regression assessing predictors of non-preferred contraceptive use.

Results: Among 480 participants reporting contraceptive use both pre-pandemic and at baseline COVID study, significant changes ($p<0.001$) occurred in method use. At COVID-baseline, fewer participants reported not using any contraception (3.3% v. 7.2%) and long-acting reversible contraception use (50.2% v. 62.6%) and more reported emergency contraception use (12.5% v. 0.2%) compared to a year prior. Across timepoints, few (5.8%) participants reported being unable to access any contraceptive method in the past two months, but more (20%) reported using a non-preferred method. At endline, 17.8% of participants reported an unmet need to switch or discontinue their current method. Statistically significant predictors of non-preferred method use included: difficulty paying for housing, medication, transportation or food in the past two months; low feelings of control over pregnancy; and current use of behavioral methods or no method/abstinence.

Conclusions: Former no-cost contraception recipients remained vulnerable to pandemic constraints around sexual and reproductive health needs. While need for *any* contraceptive method was low, the ability to switch or discontinue methods was an important unmet SRH need during the pandemic.

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P54

THE ASSOCIATION OF PAYER STATUS WITH POSTPARTUM STERILIZATION FOLLOWING UNINTENDED PREGNANCY

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Objectives: Patients with public insurance in the US face disparate administrative barriers to obtaining permanent contraception, as compared with those with private insurance. We sought to evaluate the association of public insurance status with postpartum sterilization utilization following an unwanted pregnancy in a nationally representative sample.

Methods: We performed an analysis of the nationally representative 2013 - 2015 National Survey of Family Growth (NSFG). Respondents with either Medicaid or private insurance were included if they reported a prior unwanted pregnancy that resulted in a live delivery. We excluded respondents who never had a live delivery, as well as those with Medicare, military, Indian Health Service, single service plan, or no insurance. We performed a weighted multiple logistic regression for which completion of tubal sterilization within two months of the unwanted delivery was the primary outcome. Demographic and clinical variables were extracted from the NSFG to inform the model.

Results: Our sample comprised 476 respondents representing 4,519,780 people in the US. After controlling for age, race/ethnicity, nativity, educational achievement, English proficiency, partner status, religious affiliation, mode of delivery, parity, BMI, and gestational age at delivery, Medicaid insurance was found to be statistically significantly associated with lower odds of obtaining postpartum sterilization (OR 0.39, 95% CI 0.19-0.79).

Conclusions: Prior literature analyzing the impact of structural barriers posed by Medicaid insurance on obtaining desired sterilization is limited to single center studies. We show that Medicaid insurance may independently lead to lower rates of sterilization in a nationally representative sample of people with unwanted births.

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P55

PLASMA LEVONORGESTREL LEVELS FROM 72 TO 96 MONTHS IN OBESE AND NON-OBESE WOMEN USING A LEVONORGESTREL 52 MG INTRAUTERINE SYSTEM

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Objectives: To evaluate levonorgestrel plasma concentrations from 72 through 96 months in obese and non-obese women using a levonorgestrel 52 mg intrauterine system (IUS).

Methods: Eligible women 16-45 years old received a levonorgestrel 52 mg IUS (Liletta®) in a multicenter trial evaluating efficacy and safety for up to ten years. All participants began blood sampling every six months at month 36. Levonorgestrel levels were analyzed using liquid chromatography-tandem mass spectrometry with a lower limit of detection of 25 pg/mL. We compared levonorgestrel concentrations in obese and non-obese women at each time point from 72 through 96 months using an independent-samples t-test.

Results: Average BMI in obese and non-obese sub-study participants with sampling at 60 months were 36.6±5.9 kg/m^2 and 23.8±3.0 kg/m^2, respectively; 24.4% of obese subjects had a BMI ≥40 kg/m^2. Plasma levonorgestrel concentrations were lower in obese compared with non-obese subjects at all time-points: 68±31 pg/mL (n=80) vs. 103±44 pg/mL (n=163) at 72 months, 69±33 pg/mL (n=64) vs. 99±37 pg/mL (n=148) at 84 months, and 68±26 pg/mL (n=35) vs. 95±36 pg/mL (n=101) at 96 months ($p<0.0001$ for all months). Mean levonorgestrel concentrations declined slowly from 72 to 96 months in obese (0.4% decline) and non-obese (8% decline) users.

Conclusions: Levonorgestrel plasma levels are low in all levonorgestrel 52 mg IUS users during the later effective years (years 6-8). Obese women demonstrate lower plasma levonorgestrel concentrations than non-obese women; the decline in all users was very gradual and remained parallel between obese and non-obese women from 72 to 96 months of use.

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