Efficacy and Safety of Long-Acting Reversible Contraception in Women With Cardiovascular Conditions

Quyen Vu, BAHa,*, Elizabeth Micks, MD, MPHb, Erin McCoy, MPHb, and Sarah Prager, MD, MASb

The physiological changes that occur during pregnancy can be deleterious to women with a cardiovascular condition. Evidence-based contraceptive counseling and provision is essential in this patient population. Although long-acting reversible contraception (LARCs), which include the intrauterine device (IUD) and the etonogestrel contraceptive implant, have been found to be safe and effective in healthy women, there are inadequate data regarding LARC use in patients with cardiovascular conditions. We conducted a retrospective chart review of women diagnosed with cardiovascular disease who had a copper IUD, levonorgestrel-releasing intrauterine system or contraceptive implant placed at the University of Washington Medical Center from 2007 to 2012. We abstracted and analyzed patient demographic characteristics, medical conditions, indications for LARC placement, and complications. The sample included 470 women with cardiovascular conditions. The mean age was 34.6 years. One hundred twenty-four patients (26.11%) were nulligravid and 169 patients (35.58%) were nulliparous. Four hundred ten chose the levonorgestrel-releasing intrauterine system (87.23%), 33 patients (7.02%) opted for the copper IUD, and 23 patients (4.89%) chose the etonogestrel implant. Eighteen patients (3.83%) had a confirmed IUD expulsion, 2 patients (0.43%) became pregnant, and there were 4 cases of pelvic inflammatory disease (0.85%). There were no cases of perforation. There were no confirmed cases of infective endocarditis associated with LARC insertion. In conclusion, LARC devices appear safe with few complications for women with cardiovascular conditions. Clinicians can be reassured that LARC may be offered as an appropriate option when counseling women with cardiovascular disease on safe contraceptive methods. © 2016 Elsevier Inc. All rights reserved.

(Am J Cardiol 2016;117:302–304)

In patients with cardiovascular conditions, there are limited data regarding the safety and efficacy of long-acting reversible contraception (LARC).1,2 This lack of data is evident in the Centers for Disease Control and Prevention United States Medical Eligibility Criteria for Contraceptive Use clinical recommendations: “theoretical concern exists about the effect of levonorgestrel (LNG) on lipids,” and “no direct evidence exists on the safety of IUDs in women with peripartum cardiomyopathy. Limited indirect evidence from noncomparative studies did not demonstrate any cases of arrhythmia or infective endocarditis in women with cardiac disease who used IUDs.”3 The present study examined the safety and efficacy of LARC use in women with cardiovascular conditions.

Methods

We conducted a retrospective chart review of women previously diagnosed with a cardiac condition who had an LARC device (IUD or contraceptive implant) placed at the University of Washington from January 1, 2007 to March 1, 2012. The University of Washington Institutional Review Board approved the study. Data were both abstracted and extracted from the electronic medical records from the University of Washington Medical Center, Harborview Medical Center, and other University of Washington–affiliated clinics using Microsoft Amalga Unified Intelligence System. Study data were collected and managed using research electronic data capture tools hosted at the University of Washington.4 We identified subjects using International Classification of Diseases (ICD-9) codes for a wide range of cardiovascular conditions (see Appendix 1). We included the following categories of cardiovascular conditions: cardiac arrhythmias, congenital heart disease, heart failure, valvular heart disease, coronary heart disease, pulmonary heart disease, cardiomyopathy, venous and arterial vascular disease, rheumatic heart disease, and hypertensive heart disease. We analyzed patient characteristics, indications, and complications after LARC placement. All analyses were performed in Stata 13.

Results

There were 470 women with cardiovascular conditions who had the LARC device placed during the study period. Baseline patient characteristics, time of LARC device placement, and the type of LARC device chosen are summarized in Table 1.

The most common category of cardiovascular diagnosis was cardiac arrhythmia (Table 2). ICD-9 diagnosis codes

---

Footnotes:

1) 425-533-8634; fax: (+1) 206-543-3915.
E-mail address: quyenv@uw.edu (Q. Vu).
included in each category of cardiovascular condition and the frequencies for each are listed in Appendix 1 (Supplementary Materials). Many patients were noted to have more than one cardiovascular diagnosis.

There were 328 women (69.79%) who had the LARC device placed for contraception. Medical records for 159 women (33.83%) indicated that the LARC device was placed for treatment of dysmenorrhea or abnormal uterine bleeding, including menorrhagia, metrorrhagia, perimenopausal bleeding, and postmenopausal bleeding. Thirty-nine women (8.21%) had LARC placement to treat a gynecologic condition not related to bleeding, including carcinoma of the vulva, polycystic ovary syndrome, endometriosis, uterine polyps, ovarian neoplasm, endometrial hyperplasia, and dysplasia of the cervix. Finally, 2 women chose the LARC method for a reason coded as "Other" in the chart.

One experienced migraine headaches related to her menstrual cycle and reported a desire for menstrual suppression. The second opted for an LNG-releasing intrauterine system because she believed that the progestin hormone replacement therapy she was previously using was causing urinary incontinence.

Complications after LARC insertion are summarized in Table 3. Four women (0.85%) developed pelvic inflammatory disease (PID) or endometritis after IUD insertion. Notably, 2 of these had the IUD inserted immediately after an abortion procedure: one underwent suction dilation and curettage at 14 5/7-week gestation and PID was diagnosed 7 days following the procedure, and the other had a suction dilation and curettage at 8-week gestation, with PID diagnosed 29 days after the procedure. The third case of PID was diagnosed in a patient who experienced multiple IUD expulsions. One patient (0.21%) developed endometritis after IUD insertion in the setting of a complicated gynecologic history of multiple fibroids and polyps as well as long-standing menorrhagia. This patient’s IUD became malpositioned and embedded in the myometrium.

There was one case of confirmed endocarditis that was diagnosed 51 days after IUD insertion. According to the patient chart, the infectious disease department found that this patient’s endocarditis was likely caused by drug-resistant...
دانلود مقاله

http://daneshyari.com/article/2853011

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات