## Parity Plus OC Use Curbs Endometriosis Risk

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FROM THE ANNUAL MEETING OF THE INTERNATIONAL PELVIC PAIN SOCIETY

CHICAGO – Longer oral contraceptive use plus parity were protective against the development of endometriosis in a retrospective cohort study of young women in the Australian Longitudinal Study on Women's Health.

Researchers analyzed data at four time points over a 10-year-period from a subset of 9,427 women aged 18-23 years at the time of entry in the ALSWH. The study is prospectively following 40,000 women over 20 years to better estimate the association between oral contraceptive (OC) use and risk of endometriosis.

A total of 514 new endometriosis cases occurred over the 10 years, with an incidence rate of 670 per 100,000 personyears of risk, Dr. Frank Tu and his associates reported in a poster at the meeting.

Univariate analysis revealed that immediate prior OC use was a risk factor for endometriosis. In bivariate analysis,



Nulliparous women with prior exposure to OCs had an increased risk of developing endometriosis.

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however, OC use was a risk factor for endometriosis in nulliparous women but not in parous women.

The researchers then conducted a multivariate Cox regression analysis that adjusted for such confounders as body mass index (BMI), parity, geographical location, OC use for other reasons, urinary pain, marital status, SF-36 (Short-Form–36) pain score, dysmenorrhea, total years of OC use, and its interaction with parity.

In this analysis, nulliparous women with prior exposure to OCs had a dosedependent increased risk of developing endometriosis; however, prior exposure to OCs was protective among parous women, reported Dr. Tu of the NorthShore University Health System in Chicago.

Compared with nulliparous women who never used OCs, the risk for a subsequent diagnosis of endometriosis was 1.8 times higher in nulliparous women who had used OCs for less than 5 years, and 2.3 times higher in those with at least 5 years of OC use.

In contrast, parous women with 5 years or more of OC exposure had a significant 59% reduced risk of endometriosis, compared with those who never used OCs. The risk of endometriosis was reduced 55% in parous women with less than 5 years of OC, but this did not reach statistical significance.

"While our study revealed that longer [OC] use plus parity were protective against endometriosis, rigorous mechanistic studies are needed to validate if use of exogenous sex hormones is a risk factor for the development of endometriosis and pelvic pain conditions among nulliparous women," the authors concluded.

At midstudy, endometriosis patients were significantly more likely than controls to report having heavy menstrual periods "sometimes or often" (46% vs. 25%), having constipation (19% vs. 13%), painful urination (17% vs. 8%), severe period pain (64% vs. 38%), low back pain (48% vs. 37%), and depression (4% vs. 2%).

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interest.

Roughly two-thirds of cases and controls had an acceptable BMI of 18.5-25 kg/m<sup>2</sup> (68% vs. 69%), one-third had some post-high school education (29% vs. 30%), and few were married (10% vs. 9%).

**Major Finding:** Parous women with 5 years or more of oral contraceptive use had a significant 59% reduced risk of endometriosis, compared with those who never used oral contraceptives.

**Data Source:** Retrospective cohort study of 9,427 women in the prospective Australian Longitudinal Study on Women's Health. **Disclosures:** Dr. Tu disclosed no conflicts of

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## INDICATION

Prolia<sup>™</sup> is indicated for the treatment of postmenopausal women with osteoporosis at high risk for fracture, defined as a history of osteoporotic fracture, or multiple risk factors for fracture; or patients who have failed or are intolerant to other available osteoporosis therapy. In postmenopausal women with osteoporosis, Prolia<sup>™</sup> reduces the incidence of vertebral, nonvertebral, and hip fractures.

## **IMPORTANT SAFETY INFORMATION**

- ₩ Hypocalcemia: Prolia<sup>™</sup> is contraindicated in patients with hypocalcemia. Pre-existing hypocalcemia must be corrected prior to initiating Prolia<sup>™</sup>. Hypocalcemia may worsen, especially in patients with severe renal impairment. In patients predisposed to hypocalcemia and disturbances of mineral metabolism, clinical monitoring of calcium and mineral levels is highly recommended. Adequately supplement all patients with calcium and vitamin D.
- Serious Infections: In a clinical trial (N = 7808), serious infections leading to hospitalization were reported more frequently in the Prolia<sup>™</sup> group than in the placebo group. Serious skin infections, as well as infections of

the abdomen, urinary tract and ear, were more frequent in patients treated with Prolia<sup>™</sup>. Endocarditis was also reported more frequently in Prolia<sup>™</sup>-treated subjects. The incidence of opportunistic infections was balanced and the overall incidence of infections was similar between the treatment groups. Advise patients to seek prompt medical attention if they develop signs or symptoms of severe infection, including cellulitis.

Patients on concomitant immunosuppressant agents or with impaired immune systems may be at increased risk for serious infections. In patients who develop serious infections while on Prolia™, prescribers should assess the need for continued Prolia™ therapy.

- ♥ Dermatologic Adverse Reactions: Epidermal and dermal adverse events such as dermatitis, eczema and rashes occurred at a significantly higher rate in the Prolia<sup>™</sup> group compared to the placebo group. Most of these events were not specific to the injection site. Consider discontinuing Prolia<sup>™</sup> if severe symptoms develop.
- Solution of the Jaw (ONJ): ONJ, which can occur spontaneously, is generally associated with tooth extraction and/or local infection with delayed healing, and has been reported in patients receiving Prolia<sup>™</sup>. An oral exam should