

Egyptian Fertility Sterility Society

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Is the Risk of Breast Cancer with Levonorgestrel Intrauterine Device (LNG IUD “Mirena®”) Higher than Combined Oral Contraceptives (COCs)?

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What is known already?

Compared with women who never used hormonal contraception, the overall relative risk of invasive breast cancer among women who were current or recent users of COCs was 1.20 (95% confidence interval [I], 1.14–1.26). Relative risk increased with duration of use, ranging from 1.09 (95% CI, 0.96–1.23) for less than 1 year of use to 1.38 (95% CI, 1.26–1.51) for use longer than 10 years. In general, risk was similar among different formulations or preparations of COCs [1]

LNG IUD is an excellent first-line therapy option for adolescents and young women for both contraceptive and non-contraceptive indications, regardless of age, parity, or sexual activity. [2]

Although COCs have reported a small increase in overall risk of breast cancer, the impact of LNG-IUD has been less clear. [3-7]

The body of evidence suggests a small increased absolute risk of breast cancer with LNG IUD use [3-6], although not all studies agree. [7]

. What is New?

A recent Danish nationwide: A total of 78 595 new LNG-IUS users and 78 595 nonusers of hormonal contraceptives were identified. During a mean follow-up of 6.8 years, 1617 participants were diagnosed with breast cancer (720 LNG-IUS users and 897 nonusers). [8]

This study found an association between LNG-IUD use and increased breast cancer risk in females aged 15 to 49 years, compared with nonuse. The hazard ratio (HR) for breast cancer was 1.4 (95% CI, 1.2-1.5) with LNG-IUS use compared with nonuse of hormonal contraceptives which is nearly similar to that of COCs.

Although the absolute breast cancer risk is low in young women, this risk did not increase with duration of use. [8]

Clinical Implication

For comparison, the increased risk of breast cancer conferred by LNG IUD use appears to be similar to the risk conferred by COCs, but did not increase with duration of use. These comparisons are useful in counseling patients and helping each patient understand their individual risk.

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