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Ulipristal Acetate

Critical Review About Endometrial and Ovulatory Effects in Emergency Contraception

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Abstract

The effectiveness of emergency contraception (EC) is usually estimated by comparing the number of observed pregnancies to that of expected pregnancies after unprotected intercourse. Second-generation selective progesterone receptors modulators have been developed and evaluated for EC use. Among these compounds, ulipristal acetate (UPA) has been proven to share the same antiprogestin activity as mifepristone, and as with mifepristone, UPA has been demonstrated to be effective up to 120 hours after unprotected intercourse. The UPA is more effective than levonorgestrel (LNG) in preventing the appearance of clinically evident pregnancies. The LNG delays ovulation only when taken at the beginning of the fertile period; taken later, it is ineffective on ovulation, while it has been proven to impair the subsequent luteal function. The effectiveness of LNG decreases as time elapses and is limited to 72 hours after unprotected intercourse. The UPA maintains consistent effectiveness for 5 days after unprotected intercourse, and this effectiveness is independent on which of these 5 days it is taken. The ability of UPA to delay ovulation decreases progressively as ovulation approaches and is null at the time of the luteinizing hormone (LH) peak: 1 to 2 days before ovulation, UPA behaves as a placebo. The persistent effectiveness of the drug cannot be due to antiovulatory action, as it decreases sharply as LH approaches its peak level. The effectiveness is most likely due to the dramatic endometrial effects of the drug that are produced regardless of when it is taken. These effects are consistently present, as the threshold for altering endometrial morphology is lower than the threshold for altering folliculogenesis.

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