Drugs 2005; 65 (16): 2307-2308
0012-6667/05/0016-2307/$39.95/0

Low-Dose Ethinylestradiol/ Levonorgestrel

A Viewpoint by Luis Bahamondes

Human Reproduction Unit, Department of Obstetrics and Gynaecology, School of Medicine Universidade Estadual de Campinas (UNICAMP), Campinas, Brazil

Almost 45 years have elapsed since the introduction of the first combined oral contraceptive (COC; 'the pill') in the market, with millions of women having benefited from its contraceptive and non-contraceptive benefits. Among the most important non-contraceptive benefits are the reduction of anaemia, ovarian cysts, dysmenorrhoea, and endometrial and ovarian cancer. The composition of COC has changed over time, with the introduction of different and new progestogens and with the reduction of estrogen levels. Nevertheless, although new formulations have been introduced, the most common combination used in a COC remains ethinylestradiol plus levonorgestrel.

Although the progestogen component of the COC has some adverse effects, mainly upon mood changes, the main concern with COC use continues to be the level of estrogen, especially in regard to its association with venous thromboembolism and pulmonary emboli.

A low-dose combination of ethinylestradiol with levonorgestrel 20μg/100μg was associated with ovarian suppression in almost 100% of the cycles. Moreover, with this low-dose formulation, the Pearl index was similar to that with high-dose formulations of ethinylestradiol/levonorgestrel, and the return to ovulation was excellent – two important characteristics of any kind of reversible contraceptive method. Moreover, low-dose ethinylestradiol/levonorgestrel was similar to older formulations in its effects on serum lipid levels, blood pressure and haemostasis.

Since irregular bleeding or spotting is one of the major reasons for discontinuation of any contraceptive method, the breakthrough bleeding and/or spotting that occurred in almost 20% of cycles represents a potential disadvantage for low-dose ethinylestradiol/levonorgestrel. Nevertheless, this new COC showed excellent performance as a contraceptive method, and its reduced dose of hormonal compounds could prove to be safer in the long term for women. ▲