

Drospirenone and mood

Aust Prescr 2022;45:116

<https://doi.org/10.18773/austprescr.2022.048>

I read with interest the article 'Hormonal contraception and mood disorders', but noted that it overlooked the 4 mg drospirenone 24/4 progestogen-only pill (Slinda).¹ The article also did not consider the 20 microgram ethinylestradiol/3 mg drospirenone preparation which has an indication for treatment of premenstrual dysphoric disorder.

Perhaps the authors might consider that the benefits shown in their pilot study may be due to a 24/4 preparation (also noted in the studies referenced in reducing pill-free interval) as well as the active ingredient?

Andrew Zuschmann
Obstetrician and gynaecologist, Anarua,
Miranda, NSW

Conflicts of interest: Dr Zuschmann has been a consultant to Bayer, Besins and MSD.

REFERENCE

1. Mu E, Kulkarni J. Hormonal contraception and mood disorders. *Aust Prescr* 2022;45:75-9. <https://doi.org/10.18773/austprescr.2022.025>

Eveline Mu and Jayashri Kulkarni, the authors of the article, comment:



The 4 mg drospirenone preparation became available in Australia in October 2021 after we wrote the article.¹

For contraceptives containing drospirenone, a 2012 Cochrane meta-analysis tentatively described improvement in women with premenstrual dysphoric disorder, however there was a large placebo effect.² Our clinical experience with the 20 microgram ethinylestradiol/3 mg drospirenone preparation in women with premenstrual dysphoric disorder and (commonly) a trauma history is that the lower dose ethinylestradiol, compared to many other preparations, did not improve premenstrual dysphoric disorder as well as the combination of estradiol and norgestrel.³

The estradiol and norgestrel combination is effective because of its 24/4 regimen. As the proposed aetiology for mood disturbance is related to the cyclical shift in endogenous estrogen, having more estradiol (24 days) is better in terms of equilibrium of both mood and estrogen. Norgestrel is a better progestogen in terms of neurotransmitter interactions. However, a head-to-head clinical trial of a 21/7 pill compared to 24/4 needs to be done to confirm this.

REFERENCES

1. Mu E, Kulkarni J. Hormonal contraception and mood disorders. *Aust Prescr* 2022;45:75-9. <https://doi.org/10.18773/austprescr.2022.025>
2. Lopez LM, Kaptein AA, Helmerhorst FM. Oral contraceptives containing drospirenone for premenstrual syndrome. *Cochrane Database Syst Rev* 2012;2:CD006586. <https://doi.org/10.1002/14651858.cd006586.pub4>
3. Biegon A, McEwen BS. Modulation by estradiol of serotonin receptors in brain. *J Neurosci* 1982;2:199-205. <https://doi.org/10.1523/jneurosci.02-02-00199.1982>