Review: progestogens do not resolve postnatal depression but oestrogens may improve depression scores


QUESTION: In women with postnatal depression (PND), how effective are oestrogens or progestogens in resolving depression?

Data sources
Studies were identified by using the Specialised Register of Controlled trials of the Cochrane Pregnancy and Childbirth Group. Search terms were postnatal, postpartum, or puerperal depression or psychosis; progestogen; progesterone; oestrogen; estrogen; contraception; and hormonal contraception. References of relevant studies were reviewed.

Study selection
Studies were selected if they were randomised trials of women enrolled during pregnancy or within 18 months of giving birth who received oestrogen or progestogen for PND.

Data extraction
Data were extracted on methodological quality, definition and estimation of PND, and outcome measurement. Primary outcomes were duration and resolution of depression.

Main results
Only 2 trials were included. In 1 study 180 women were allocated to 1 injection of a progestogen (norethisterone enanthate) or saline placebo within 48 hours of delivery. At 6 weeks postpartum, women who received progestogen had an increased incidence of depression [p = 0.01]* (table 1) and higher depression scores [p = 0.04]* (table 2) than women who received placebo. At 6 months postpartum, women who received oestrogen had greater improvement in depression scores at 6 months than women who received placebo [p = 0.03]* (table 2). 3 women (11%) had endometrial hyperplasia after 6 months of oestrogen treatment.

Conclusions
In women with postnatal depression, progestogens do not resolve depression and are associated with increased depression at 6 weeks postpartum. In one small study, treatment with oestrogen improved depression scores at 6 months postpartum.

*p Values calculated from data in article.

**COMMENTARY**

PND affects 10% of recently delivered women. However, apart from the hormonal studies reviewed by Lawrie et al, few studies exist on its treatment. What are the reasons for this discordance?

PND is generally construed as a form of depression occurring in a special context rather than a distinct clinical entity that deserves attention on its own, a conception that is well reflected by contemporary diagnostic classification systems. For instance, in the DSM-IV the occurrence of depression in the postpartum period is merely indicated by a specifier (“of postnatal onset”), which is rarely used by clinicians. Furthermore, it is commonly believed that PND can be managed in the same line as depression in other contexts.

This homogenising perspective, however, ignores the profound and drastic changes that confront a woman in the early weeks after giving birth: adaptation to new roles and identities; the pressing need to acquire mothering skills; inevitable changes in other facets of life, such as career and spousal relationships; not to mention the perpetual sleep deprivation. The magnitude and the swiftness of these highly contextualised psychosocial changes are as unique as the synchronisation of a plummeting array of hormones (some potentially mood altering) with psychosocial changes. Unlike depression in other contexts, PND has also been shown to adversely affect the cognitive and emotional development of children.

Postnatal depression warrants specialised understanding of the biological implications of hormonal fluctuations, the psychological mechanisms that underlie the infant’s cognitive impairment, and the local experience of the depressed mothers. Unfortunately, perinatal psychiatry has not taken on the status enjoyed by other psychiatric sub-specialties. PND remains marginalised in the research agenda.

The research question proposed by Lawrie et al reminds us that PND has distinct aetiology and treatment concerns that have not been adequately researched. Much awaits to be done to increase our understanding of PND.

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Table 1  Progestogen v placebo for incidence of postnatal depression

<table>
<thead>
<tr>
<th>Incidence of depression</th>
<th>Progestogen (95% CI)</th>
<th>Placebo (95% CI)</th>
<th>RRI (95% CI)</th>
<th>NNH (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 weeks postpartum</td>
<td>45% (14 to 74)</td>
<td>26% (4 to 20)</td>
<td>75% (1 to 147)</td>
<td>6</td>
</tr>
<tr>
<td>3 months postpartum</td>
<td>32% (8 to 68)</td>
<td>30% (0.05 to 62)</td>
<td>8.6% (8 to 24)</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

†Abbreviations defined in glossary; RRI, NNH, and CI calculated from data in article.

Table 2  Mean depression scores for progestogen or oestrogen v placebo

<table>
<thead>
<tr>
<th>Mean depression scores</th>
<th>Progestogen</th>
<th>Placebo</th>
<th>Difference (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 weeks postpartum</td>
<td>10.6</td>
<td>7.5</td>
<td>3.1 (1.0 to 5.2)</td>
</tr>
<tr>
<td>3 months postpartum</td>
<td>9.3</td>
<td>8.5</td>
<td>0.8 (-1.3 to 2.9)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oestrogen</th>
<th>Placebo</th>
<th>Difference (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months postpartum</td>
<td>13.3</td>
<td>16.5</td>
</tr>
</tbody>
</table>

‡CI calculated from data in article. §Not significant.
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