

#### Mini Review

# Hormones and depression in women

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It is well known that depression is more common in women than in men with more prescriptions for antidepressants, hospital admissions for depression and suicide attempts. However another aspect to be considered is that depression is different in women than men because women have depressive episodes at times of hormonal shift which is a physiological phenomenon not encountered in men. This is why hormone therapy is so important.

Depression in women occurs at times of hormonal flux. This is most obvious with premenstrual depression occurring soon after puberty which usually becomes worse with age occurring for 3-14 days before a period - usually before every period. Severe premenstrual depression stops during pregnancy but then recurs after delivery as postnatal depression. This depression then become cyclical as the periods reappear. If the woman breastfeeds for any length of time the depression does not usually recur until she stops breastfeeding and periods and cycles recommence. This cyclical premenstrual depression continues and often gets worse in the years before the cessation of periods in what we call the menopausal transition. After the menopause the depression may cease although there remain problems of insomnia due to vasomotor symptoms with loss of sex drive as well as tiredness due to insomnia. This combination of premenstrual, postnatal and climacteric depression is now known as Reproductive Depression [1] and responds well to the administration of estrogen.

## **Premenstrual depression**

For many years the mood swings of premenstrual depression has been treated with progesterone without evidence that it was effective. Indeed women with premenstrual depression (PMDD) are usually progesterone/ progestogen intolerant and respond badly to depot Provera or the progestogen only birth control pill. On the other hand estrogens will suppress ovulation and the cyclical hormonal changes that produce premenstrual depression Many workers have used transdermal estrogens and randomized trials have indicated their efficacy against placebo [2,3].

#### More Information

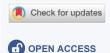
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#### **Postnatal depression**

This is a serious psyschiatric problem which can result in profound depression and irrational behaviour in the mother with the risk of harm to the baby. It is traditionally treated with antidepressants but it is logical that estrogens, by bringing the hormone levels almost up to pregnancy levels, should be affective. We had a large randomized study published in The Lancet 20 years ago indicating the supremacy of transdermally estrogen patch pagainst placebo [4] but no workers have completed a study comparing estrogens with antidepressants. However the evidence that transdermal estrogens help depression after pregnancy is strong and would be our first choice therapy for this condition which fits into the overall concept of Reproductive Depression --PMS Postatal and Cimacteric depression all being effectively treated with the correct dose of oestrogens using the correct route which is transdermal and not oral.

## Menopausal depression

The most severe symptom often occur two to three years before the cessation of periods in what is called the menopausal transition or the perimenopause. There are now many scientific studies confirming the efficacy estrogens and certainly the experience of menopausal experts and their patients strongly indicates that estrogens are very effective for this problem should be first line therapy [5].

The treatment of choice for women with reproductive depression is in the form of transdermal estrogens either



by Patch or gels or occasionally implant. Our preference is for transdermal oestrogens as they do not have the small risk (very small risk) of thrombosis that is present with oral estrogens. In fact we never use oral estrogens because of the slight risk of deep vein thrombosis, strokes and heart attacks of any oral estrogens whether it is the birth control pill in the young or HRT in older women.

#### Progestogen or progesterone

Progesterone by mouth or as a cream or gel seems to be a feature in many so-called bioidentical hormone preparations. It doesn't work anymore than placebo [6] and there is no need ever to measure progesterone level unless you are a younger woman wishing to check on the presence or timing of ovulation for reasons of fertility. It has no relevance in the diagnosis or treatment of the menopause

However progesterone or progestogen is important for protection from the rare occurrence endometrial cancer in women receiving many years of estrogens .It is usual to give 12-14 days of progestogen each month to stop overstimulation of the womb lining with estrogens but the problem is

that progestogen often causes depression particulatly in progesterone intolerant women with a history of PMS .In such patients we often reduce the progesterone duration to  $10\ \text{or}\ 7$  days each month

Another reason to use minimal progestogen (synthetic progesterone) is that virtually all studies of estrogen alone have shown no increase or even a decrease in breast cancer. The problem seems to be in the continuous progestogen found in no-bleeding HRT preparations. Natural progesterone like Utrogestin of 14 or even 7 days a month do not appear to carry that risk.

## References

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