Lactation and Psychotropic Medications: Treatment Considerations
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Excerpt

Postpartum Depression Treatment Issues
Postpartum depression (PPD) is a significant treatment issue. It is estimated that 10% to 15% of women have clinical depression after giving birth (Wisner et al., 1996). These rates may be even higher in adolescent mothers (Baugh and Stowe, 1999). Women with previous episodes of PPD have an associated increased risk of 50% to 62% for another postpartum episode (Altshuler et al., 1998).

Current evidence regarding the use of antidepressants in breast-feeding suggests that they are all excreted in the breast milk to some degree. Clomipramine (Anafranil) was the only antidepressant categorized as "usually compatible with breast-feeding" by the American Academy of Pediatrics. This statement has since been revised. Clomipramine is now categorized as "effect on nursing infants is unknown, but may be of concern," which is how most antidepressants are currently labeled (Eidelman and Schimmel, 1995). Most of the published evidence suggests that in healthy, full-term infants older than 10 weeks of age, there is a low risk of adverse effects secondary to tricyclic antidepressant (TCA) use (except for doxepin [Adapin, Sinequan, Zonalon]) by lactating mothers despite the inherent limitations of current assay limits in detecting TCAs or their metabolites (Llewellyn and Stowe, 1998). This in large part is a function of the longer length of time that tricyclic antidepressants have been available and the greater amount of data regarding their use.

Another group of medications that is a mainstay of treatment for depression are the selective serotonin reuptake inhibitors. They do not have as many side effects as TCAs and are not as lethal in overdose. Again, the data are limited by the length of time that each SSRI has been available for use and, as such, there are more data for fluoxetine (Prozac) and sertraline (Zoloft).
In a summary of six studies observing a total of 30 infants whose mothers received between 10 mg/day and 80 mg/day of fluoxetine, two infants showed irritability or colicky behavior while the remainder showed no adverse effects (Yoshida et al., 1999). Infant plasma concentrations were obtained in only three of these studies, and the maximum fluoxetine plasma concentration was 340 ng/ml while the maximum norfluoxetine plasma concentration was 208 ng/ml in those infants who had their plasma concentrations measured.

A recent study looked at postnatal weight gain in breast-fed infants whose mothers received 20 mg/day of fluoxetine (Chambers et al., 1999). The infants who were exposed to fluoxetine in breast milk gained about 400 grams less than those infants in the study who were not exposed to fluoxetine.

Yoshida et al. (1999) summarized five studies observing a total of 26 infants whose mothers received between 25 mg/day and 200 mg/day of sertraline and found that none of the infants were observed to have any adverse effects. Infant plasma concentrations were obtained in all of the studies, and the maximum sertraline plasma concentration was 64.4 ng/ml while the maximum norsertraline plasma concentration was 67.5 ng/ml.

There are even less data regarding paroxetine (Paxil), fluvoxamine (Luvox) and citalopram (Celexa). In two studies, each with one infant whose mother received 20 mg/day of paroxetine, neither was observed to have any adverse effects, and plasma concentration was nondetectable in one and not obtained in the other (Yoshida et al., 1999). In another study looking at the concentrations of paroxetine in breast milk in six lactating women receiving between 20 mg/day and 40 mg/day, hindmilk concentrations were 78% higher than foremilk concentrations (Ohman et al., 1999). While infant plasma concentrations were not obtained, none of the infants in the study experienced any adverse effects.

In two studies, each with one infant whose mother received either 100 mg/day or 200 mg/day of fluvoxamine, neither infant had plasma concentrations obtained but neither showed any adverse effects, up to 21 months of age in one case (Yoshida et al., 1999). In two case reports on infants receiving citalopram, both infants experienced
somnolence and weight loss. While neither infant had plasma concentrations measured, one completely recovered after the mother discontinued citalopram (Parke-Davis, personal communication).

In a study measuring the concentration of citalopram in breast milk in two women, one receiving 20 mg/day and the other receiving 40 mg/day, both had milk/plasma ratios greater than one (plasma concentrations were not obtained), although neither infant was observed to have any adverse effects (Spigset et al., 1997).

In one study of three women receiving between 150 mg/day and 450 mg/day of the serotonin and norepinephrine reuptake inhibitor venlafaxine (Effexor), the parent compound was not detectable in infant plasma. In contrast, the primary metabolite of venlafaxine, O-desmethylvenlafaxine, was detected in all three infants in amounts as high as 9.2% of maternal intake. None of the infants were observed to have any adverse effects (Ilett et al., 1998).

In a case report of one infant exposed to 100 mg/day of bupropion (Wellbutrin), a dopamine, and norepinephrine reuptake inhibitor, serial infant plasma concentrations were obtained after last breast-feeding and again after last maternal dose of medication. Both assays revealed no measurable amount of bupropion or its metabolite, though "nondetectable" was defined as 0.005 mg/mL (Llewellyn and Stowe, 1998).