



Pathology Biology Section – 2007

G114 Suicidal Hanging of a Postpartum Woman Who Discontinued Anti-Depressant Medication During Pregnancy

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The goal of this presentation is to review a case of postpartum suicide in a woman with a history of major depression who discontinued her psychotropic medications during the first trimester of her pregnancy. The current controversies surrounding the treatment of depression during pregnancy and in the postpartum period will be reviewed.

This presentation will impact the forensic community and/or humanity by discussing the risks and benefits of treating depression in the puerperal period.

The decedent was a 30-year-old female who hanged herself with a dog leash 45 days after the uncomplicated vaginal delivery of her third child. Three days prior to death she began expressing depressive symptoms reported as sleep disturbance, restlessness and obsessive preoccupation with her youngest child. The day before her death she sought medical attention at a local walk-in clinic for depression and was prescribed sertraline (Zoloft). The next evening she fashioned a noose from a dog leash and using a cut log as a step stool, fully suspended herself by the neck from a tree in the back yard of her home. Scene investigation revealed copious emesis in the kitchen trash, and an empty bottle of sertraline.

She had a history of two previous inpatient hospitalizations for major depression, the first of which was an involuntary hospitalization manifested by self induced starvation and dehydration. During the first hospitalization, five years prior to her terminal event, she tried to hang herself by her bra strap three times. A second depressive episode, approximately one year before her suicide, was punctuated by her threatening to kill herself with a kitchen knife. Neither of these depressive episodes appeared related to her prior pregnancies. Her psychiatric medications prior to her third pregnancy consisted of sertraline and quetiapine on which her symptoms appeared well controlled. She discontinued her medications during the first trimester of the last pregnancy in consultation with her obstetrician secondary to the unknown teratogenicity of these medications (both are pregnancy category C). She had not restarted her medications immediately after delivery because, according to her husband, she had not felt depressed and she was breastfeeding.

At autopsy a dried ligature abrasion partially encircling the neck crossed the neck anterior midline over the superior edge of the thyroid cartilage. No petechiae were identified on the conjunctivae of the eyes, facial skin, lips or oral mucosa. A layer-wise anterior neck dissection did not reveal hemorrhage or injury within the strap muscles of the neck, the hyoid bone, or the thyroid cartilage. No pill fragments were found in the stomach. Postmortem toxicology testing revealed an elevated level of sertraline (0.24mg/L), but no additional drugs or alcohol in iliac blood.

Approximately 10% of women develop depression during pregnancy or in the postpartum period, and a previous history of major depression is a risk factor. The previous held belief that pregnancy offers "protection" from major depression has been challenged by a recent study showing a significantly higher rate of relapse amongst women who discontinued anti-depressant medication compared with those who continued treatment (Cohen et al., 2006). Selective serotonin reuptake inhibitors (such as fluoxetine, sertraline, and paroxetine) have been recommended for the treatment of depression during pregnancy due to their efficacy, as well as historical data suggesting they are not associated with birth defects (Kahn et al., 2001). Although sertraline is the most commonly prescribed anti-depressant in breastfeeding women, controversy still exists over the adverse effects it exerts on breastfed infants of mothers taking this medication (Gentile, 2005; Whitby and Smith, 2005). Concerns of fetal teratogenicity and infant toxicity due to intrauterine or breast milk exposure to anti-depressants must be balanced against the documented adverse effects that pregnancy related depression imparts on fetal and infant outcomes (Bonari et al., 204; Mian, 2005). A rare though dramatic outcome of pregnancy related psychiatric illness is maternal suicide or infanticide. Postpartum psychosis affects approximately 1% of women and may increase the risk of maternal or infant death.

This case presentation highlights the risk of discontinuing anti-depressant therapy during pregnancy for a woman with a history of major depression and previous suicide attempts. Medical examiners and investigators need to seek out a history of discontinuation of psychiatric medication in women who kill themselves or their children during pregnancy or postpartum. Only by being aware of the current controversies surrounding the treatment of depression during pregnancy and in the postnatal period will medical examiners be able to offer informed opinions when suicide or infanticide occurs in these settings.



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