

Clinical Case Rounds in Child and Adolescent Psychiatry:

Compulsive Hoarding Associated With Abortion

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Introduction

Termination of pregnancy is associated with significant psychological distress in women, including depression, substance use and anxiety (Fergusson et al, 2006; Lowenstein et al, 2006). Women suffering miscarriages demonstrate an increased prevalence of obsessive-compulsive disorder (OCD) compared to other anxiety disorders, with rates approaching 3.5%, developing within weeks and persisting for up to 6 months after pregnancy loss (Geller et al, 2004; Geller et al, 2001; Neziroglu et al, 1992; Ross & McLean, 2006; Uguz et al, 2007).

Despite these studies, there is a dearth of literature on hoarding compulsions and obsessions following abortion. We present a rare adolescent case of compulsive hoarding (CH) following abortion.

Case

The patient was a 15 year-old Caucasian female, 7 weeks pregnant when she presented to our outpatient clinic for increased irritability. She lived with her parents and her 12 year-old brother and reported ongoing conflict within the family. Her current stressors were her pregnancy and subsequent termination of her relationship with her 16 year-old boyfriend.

Upon psychiatric review of symptoms, the patient described depressed mood, irritability, guilt and hopelessness. She denied other neurovegetative, manic or psychotic symptoms. Within the last year, she reported one episode of head banging and cutting her wrist in an attempt to relieve her frustration but denied other suicidal acts or homicidal ideation. She felt anxious about her pregnancy but denied specific anxiety symptoms, including obsessions or compulsions. She smoked two joints

of marijuana per week but denied other substance use.

The patient had no previous psychiatric treatment except for a brief period of counseling for "loneliness". Her mother suffers from Bipolar I Disorder and well-controlled OCD. Her previous OCD symptoms consisted of contamination and symmetry obsessions, hand-washing and ordering/arranging compulsions. Her father had a history of alcohol abuse. There was no history of significant medical illness, perinatal complications, developmental delay or trauma. The patient was given a preliminary diagnosis of adjustment disorder with depressed mood and provided follow-up for further assessment and supportive psychotherapy.

The patient had a medical abortion at 9 weeks gestation and was re-assessed 8 weeks after this procedure. Within 1 week of her abortion, she developed progressive hoarding behaviours, involving garbage, water bottles and dirty plates, and was eventually unable to sleep in her bedroom due to the collected items. Furthermore, she endorsed writing copious amounts of lists to track items or events. She believed that if she was unable to remember the significance of or unable to find these items, it would mean she was worthless and would "forget everything". Due to her increased hoarding behaviours, the patient stopped attending school and started impairing her family's hygiene.

The patient also developed additional depressive symptoms including decreased energy, poor concentration and passive suicidal ideations. Using the Children's Yale Brown Obsessive-Compulsive scale (CY-BOCS) and Beck Depression Inventory score (BDI), she scored of 23 and 26 on each scale, respectively. Her cannabis use remained unchanged and urine toxicology revealed no other recent substance use.

Following this assessment, a trial of fluoxetine was initiated at 10 mg per day in conjunction with cognitive-behavioural therapy (CBT),

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specifically exposure-response prevention techniques. Due to her persistent symptoms, her fluoxetine dose was gradually titrated to 50 mg/day and risperidone 0.5 mg at night was added at week 18 to treat residual OCD symptoms and irritability. Her irritability was not suggestive of akathisia or mania. After 22 weeks of CBT and pharmacotherapy treatment, her CY-BOCS and BDI scores decreased to 16 and 14 respectively. She completed a 14 session course of CBT and was maintained on fluoxetine 60 mg and risperidone 0.5 mg per day. After 12-months of treatment, the patient no longer met the criteria for OCD (CY-BOCS = 0), although she had residual depressive symptoms (BDI = 10).

Discussion

The onset of OCD has been linked to reproductive events, with 7% of female patients developing OCD in the postpartum phase (Labad et al, 2005). Postpartum OCD is commonly characterized by obsessions of causing harm to the infant (Wisner et al, 1999), however, the above case of postpartum CH highlights a rare presentation of OCD in this setting. Although our patient exhibited baseline impulsivity and affective dysregulation, ongoing cannabis use, depressive symptoms and a family history of a mood disorder and OCD, she developed clear symptoms of CH following pregnancy termination.

Studies purport that the onset of OCD in the postpartum period may be related to fluctuations in steroid hormones after reproductive events (Labad et al, 2005). Hormonal changes may modify serotonergic transmission and induce hypothalamic-pituitary-adrenal axis dysregulation and are implicated in depression and OCD (Biegon, et al, 1983; Steiner et al, 2003).

Although treatment of CH primarily involves selective serotonin reuptake inhibitors (SSRIs), animal studies suggest that dopamine agonists can produce food hoarding behaviour and that lesions in the dopamine system reduce such symptoms (Blundell, et al, 1977; Kalsbeek et al, 1988). These models support the reported efficacy of SSRI augmentation with dopamine-antagonists, such as risperidone for OCD, however, evidence for the treatment of postpartum OCD without hoarding is restricted to open-label studies (Bloch et al, 2006; Misri & Milis, 2004). Furthermore, routine antipsychotic aug-

mentation in OCD is limited by such complications as extrapyramidal symptoms, metabolic disturbances, hyperprolactinemia and paradoxical exacerbation of OCD symptoms.

Moderate improvement of CH can be achieved with combined pharmacological treatment and CBT (Black et al, 1998; Mataix-Cols et al, 2002). The CBT model purports that patients develop intense emotional responses secondary to maladaptive beliefs, including poor memory confidence and an exaggerated sense of responsibility to possessions. CBT can reduce clutter, excessive acquisition and difficulty discarding objects in CH and proved effective in combination with pharmacotherapy in our case (Tolin, et al, 2007).

The above case should remind clinicians to screen for CH when anxiety symptoms, specifically OCD symptoms, are present in the postpartum period even in adolescents. Further research is required to elucidate the etiology and effective treatment options for this challenging disorder.

Acknowledgement/Conflict of Interest

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Commentary on Compulsive Hoarding Associated with Abortion

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The authors report a case of an adolescent onset of obsessive compulsive (OC) and depressive symptoms following medical termination of pregnancy at 9 weeks gestation. In addition, the authors describe successful implementation of standardized, evidence based multimodal treatment approaches. OC symptom severity and treatment responses were monitored by serial administration of the Children's Yale Brown Obsessive-Compulsive scale (CY-BOCS), a widely used clinical instrument. Finally, the discussion section includes a brief review of what is currently known about the association of female reproductive events and the onset of OC symptoms.

This case highlights the complex task of understanding the relationship between clinical symptoms, etiology and physiology of OC symptoms. For example, the authors report that compulsive hoarding (CH) was the main presenting OC symptom. CH is now recognized as an important symptom dimension of Obsessive compulsive disorder (OCD) [1]. However, patients with CH may have distinct brain activation patterns,

sociodemographic and clinical features. A recent functional magnetic resonance imaging study suggested that, compared with checking and washing behaviours, CH predominantly activated ventral prefrontal regions and the left amygdala [2]. Furthermore, patients with CH have a younger age of onset and higher co-morbidity rates of bipolar II and eating disorders [3]. Indeed, the possible association of CH and eating disorders may be of particular relevance for the present case report. Previous animal studies have reported an association of food hoarding (storage of food beyond immediate energy requirements) with pregnancy and lactation [4]. Thus, the present case report successfully raises the issue of studying physiological correlates of specific OCD symptoms during childhood and adolescence.

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