

Acne as a Potential Adverse Effect of Duloxetine



Martin A. Katzman¹, Melissa Furtado², Leena Anand³

Bulletin of Clinical Psychopharmacology 2014;24(4):408-10

Dear Editor,

Obsessive Compulsive Disorder (OCD) is a psychiatric condition characterized by obsessions and/or compulsions, and is estimated to have a lifetime prevalence rate of up to 5.5%¹. Individuals suffering from OCD exhibit significant distress when experiencing obsessions and compulsions as they attempt to disregard them or prevent them from occurring; however, this is often difficult due to increasing anxiety levels related to their symptoms¹.

Although pharmacological interventions are considered to be the primary method of treatment for OCD patients, approximately 40 to 60% of OCD patients do not exhibit any improvement in symptoms¹. Research has found that higher dosages of Selective Serotonin Reuptake Inhibitors (SSRIs) are typically required to produce significant improvements in OCD symptoms, compared to the doses required of SSRI treatment in other mood and anxiety disorders¹. Serotonin Norepinephrine Reuptake Inhibitors (SNRIs), such as duloxetine, have also demonstrated success in treating the symptoms of OCD, including those of treatment resistant patients². Although adverse events still occur when treating patients with SSRI and SNRIs, the scientific literature on duloxetine has yet to provide particular attention to all possible adverse events of the drug, such as acne.

Acne is an inflammatory disease that is chronic in nature, results in facial scarring in approximately 20% of individuals³ and is often associated with increased psychological burden. Acne as an adverse effect has been established

with the treatment of particular anti-depressants, specifically amineptine⁴⁻⁹, making it imperative for physicians to be well aware of all potential adverse effects their patients experience in relation to their pharmacological treatment.

Our clinic recently observed a 25-year-old female patient diagnosed with moderately severe OCD of over 10 years' duration. The patient also met criteria for generalized anxiety disorder (GAD), social phobia, panic disorder, and posttraumatic stress disorder (PTSD). Furthermore, she had been diagnosed with a non-verbal learning disability at the age of 17, which has hampered multiple aspects of her life.

The patient's OCD was characterized by symptoms of recurrent intrusive thoughts around contamination and fears of not completing cleaning tasks, and she described elaborate rituals to ensure cleanliness.

In order to treat the patient's moderately severe OCD, a 60 mg once-daily dosage of duloxetine was initiated. Following initiation, duloxetine was found to improve her OCD symptoms and caused a decrease in her level of distress and anxiety. However, following approximately 4 weeks of treatment, the patient began experiencing significant acne breakouts. Subsequently, she began visiting her primary care physician, who treated her with a variety of topical anti-acne agents. Subsequent to a number of failed treatments over a 6 month period, at the request of the patient the duloxetine dosage was lowered to 30 mg. Following this decrease in dosage, the patient noted a significant improvement in terms of the severity of her acne, with an associated subjectively perceived

worsening in the clinical severity of symptoms of her OCD. Her duloxetine dosage was again increased to 60 mg in order to treat her OCD and related anxiety symptoms effectively. This increase in dose was effective in terms of improving her OCD symptoms, but with this increased dose, her acne breakouts soon returned with increasing severity noted by the patient, her primary care physician, and us.

Despite the need for identifying and acknowledging all potential adverse events of a pharmacological agent, the scientific literature has yet to mention the likelihood of duloxetine increasing the occurrence of severe acne breakouts. This potential adverse event could reveal one of the reasons behind the lack of patient adherence to duloxetine treatment. In the light of the severity of the acne and its effect on this patient with social anxiety disorder, it has become imperative to address this issue.

Research conducted to analyze treatment-emergent adverse events (TEAEs) as a result of duloxetine on the basis of all placebo-controlled clinical studies as of October 19, 2011 found that 26 (0.20%) of 12,722 patients reported acne as a TEAE, compared to 10 (0.11%) of 9513 patients being treated with placebo (Data on file, Eli Lilly and Company, 2013). However, there has not been any further mention in the scientific literature with regard to duloxetine increasing the likelihood of acne breakouts during the course of treatment, despite reports of other antidepressants triggering acne.

Acne vulgaris has been previously reported in

the scientific literature as a result of the use of amineptine⁴⁻⁹, a tricyclic antidepressant approved to treat major depression. Attempts to resolve the reported amineptine use-associated acne with dermatological treatment options have been primarily unsuccessful. The use of isotretinoin has been attempted in conjunction with antidepressants for the treatment of acne, however even trials of 18 months have resulted in unsuccessful remission⁹.

Duloxetine is a very effective SNRI that is well documented as an important treatment for improving symptoms in depression¹⁰, GAD¹¹, and chronic pain¹². Although the safety of duloxetine has been evaluated in large patient populations¹³, the less well-known or detected adverse events have not been discussed extensively throughout the literature.

Research has found that ≥5% of patients treated with duloxetine experience dry mouth, nausea, somnolence, constipation, decreased appetite, and hyperhidrosis¹⁴. These common adverse events have been addressed in the literature more frequently and are generally in focus during the course of clinical trials and patient management within clinical settings.

The monitoring of all potential adverse events of duloxetine, specifically those that are less well known or less likely to be detected, is essential in order to establish a complete understanding of this pharmacological agent. Thus, the present case report is a valuable observation that should be noted by clinicians, as acne may be an undiscovered reason for a patient's inability to adhere to a treatment regimen.

References:

1. Marazziti D, Consoli G. Treatment strategies for obsessive-compulsive disorder. *Expert Opin Pharmacother* 2010;11(3):331-43. [\[CrossRef\]](#)
2. Dell'Osso B, Mundo E, Marazziti D, et al. Switching from serotonin reuptake inhibitors to duloxetine in patients with resistant obsessive compulsive disorder: a case series. *Psychopharm* 2008;22(2):210-3. [\[CrossRef\]](#)
3. Williams HC, Dellavalle RP, Garner S. Acne vulgaris. *The Lancet* 2012;379(9813):361-72. [\[CrossRef\]](#)
4. Grupper C. New iatrogenic acne: acne caused by amineptine (Survector). *Ann Dermatol Venereol* 1988;115(11):1174-6.
5. Lévine V, Faisant M, Mourier C, et al. Monstrous acne in the adult. Inducer role of Survector? *Ann Dermatol Venereol* 1988;115(11):1184-5.
6. Teillac D, Weber MJ, Lowenstein W, et al. Acne cause by Survector. *Ann Dermatol Venereol* 1988;115(11):1183-4.
7. Thioly-Bensoussan D, Charpentier A, Triller R, et al. Iatrogenic acne caused by amineptin (Survector). Apropos of 8 cases. *Ann Dermatol Venereol* 1988;115(11):1177-80.

8. Vexiau P, Gourmel B, Husson C, et al. Severe lesions of acne type induced by chronic amineptine poisoning: apropos of 6 cases. *Ann Dermatol Venereol* 1988;115(11):1180-2.
9. Vexiau P, Gourmel B, Castot A, et al. Severe acne due to chronic amineptine overdose. *Arch Dermatol Res* 1990;282(2):103-7. [[CrossRef](#)]
10. Perahia DGS, Wang F, Mallinckrodt CH, et al. Duloxetine in the treatment of major depressive disorder: a placebo- and paroxetine-controlled trial. *Eur Psychiatry* 2006;21:367-78. [[CrossRef](#)]
11. Khan AY, Macaluso M. Duloxetine for the treatment of generalized anxiety disorder: a review. *Neuropsychiatr Dis Treat* 2009;5:23-31.
12. Brannan SK, Mallinckrodt CH, Brown EB, et al. Duloxetine 60 mg once-daily in the treatment of painful physical symptoms in patients with major depressive disorder. *J of Psychiatr Res* 2005;39:43-53. [[CrossRef](#)]
13. Knadler MP, Lobo E, Chappell J, et al. Duloxetine clinical pharmacokinetics and drug interactions. *Clin Pharmacokinet* 2011; 50(5):281-94. [[CrossRef](#)]
14. Eli Lilly and Company. Highlights of prescribing information, November 2012 (available at <http://pi.lilly.com/us/cymbalta-pi.pdf>, accessed November 1, 2013).

¹Assist. Prof., *START Clinic for Mood and Anxiety Disorders, Toronto, Canada*

²M.D., *Northern Ontario School of Medicine, Department of Psychiatry, Ontario, Canada*

³PhD., *University of Toronto, Department of Psychiatry, Toronto, Canada*

Correspondence Address: Dr. Martin A. Katzman

START Clinic for Mood and Anxiety Disorders, 32 Park Road, Toronto, Ontario, M4W 2N4, Canada

Tel: +1 416 598 9344

Fax: +1 416 598 8198

Email address: mkatzman@startclinic.ca

This letter was accepted for publication in August 6, 2014.

Declaration of interest:

M.A.K., M.F., L.A.: The authors reported no conflict of interest related to this article.