Antipsychotics and rashes

Jessica Lin

UC Irvine School of Medicine, Irvine, CA, USA

Common side effects of antipsychotic medications include antidopaminergic and anti-HAM (histaminic, adrenergic, muscarinic) effects.[1] Antipsychotics' antidopaminanergic side effects on the mesolimbic pathway are the therapeutic target; however, blockade of the nigrostriatum dopamine pathways causes extrapyramidal symptoms such as parkinsonism, akathisia, and dystonia.[2] Extrapyramidal symptoms may range from distressing (*e.g.*, torticollis) to life threatening (*e.g.*, glossopharyngeal spasms).[3]

Dermatological exanthems induced by antipsychotic use is uncommon but a rare side effect that can be alarming to patients and can signal systemic reactions to the medications. The rashes associated with antipsychotic use are due to drug reactions and rashes due to injection sites. Rashes due to antipsychotic use that were reported in the literature are summarized in Table 1.[4-20]

In the psychiatric setting, rashes are most commonly associated with the mood stabilizer lamotrigine. However, it is important to realize the other skin manifestations after antipsychotic treatments. Discontinuation of the offending drug is important after identification of a drug reaction. Topical and oral medications can help alleviate the pruritus and erythema; however, no long-term consequences have been noted from the rashes associated with antipsychotic use.

We hope that by highlighting these dermatological side effects of antipsychotics will help with managing these occurrences in clinical practice.

Correspondence: Jessica Lin, UC Irvine School of Medicine, 1001 Health Sciences Rd, Irvine, CA 92617, USA.
E-mail: linj19@uci.edu

Key words: antipsychotic treatments, rashes.

Conflict of interest: the author declares no potential conflicts of interest to disclose for this study.

Funding: none.

Received for publication: 2 August 2018
Accepted for publication: 2 August 2018

Licensee PAGEPress, Italy
Mental Illness 2018; 10:7808
doi:10.4081/mi.2018.7808

Table 1. Reported rashes with antipsychotic treatments

Medication	Route of administration	Types of rash	Location
Olanzapine	Long acting injection[4]	Unspecified	Site of injection
	Oral[5]	Pruritic, pigmented (allergic)	Whole body, especially on her neck, neckline and shanks
	Oral[6]	Pustules, erythema, pruritus	Whole body, concentrated especially on her neck and face
	Oral[7]	Erythematous (biopsy confirmed leukocytodastic vasculitis)	Dependent areas of body
	Oral disintegrating tablet[8]	Purpuric	Generalized
Clozapine	Oral[9]	Confluent, erythematous macules	Trunk and lower extremities
	Oral[10]	Erythematous macules	Diffuse around neck and chest
	Oral[11]	Itchy urticarial	Hands and limbs and the back, particularly in the pressurized area
	Oral[12]	Papular, pruritic, erythematous, and very well circumscribed	Started on torso and spread to extremities
	Oral[13]	Erythematopustular	Unspecified
Quetiapine	Oral[14]	Psoriatic	Unspecified
Aripiprazole	Oral[15]	Morbilliform maculopapular	Anterior aspect of the chest and abdomen to the upper and lower limbs sparing the face and scalp and mucosal areas (buccal cavity)
Levosulpiride	Oral[16]	Unspecified	Unspecified
Asenapine	Oral[17]	Unspecified	Unspecified
Promazine	Oral[18]	Maculopapular, pruritic	Face, limbs and trunk
Paliperidone	Oral[19]	Pruritic	Face and extremities
Risperidone	Oral[20]	Macular erythematous	Buttocks, anogenital area, pubic-suprapubic regions, inner thighs, and groins

References

1. Meyer JM. Pharmacotherapy of Psychosis and Mania. In: Brunton LL, Hilal-Dandan R, Knollmann BC, eds. Goodman & Gilman's: The Pharmacological Basis of Therapeutics, 13e. New York, NY: McGraw-Hill Education; 2017.
2. Kuepper R, Skinbjerg M, Abi-Dargham A. The dopamine dysfunction in schizophrenia revisited: new insights into topography and course. Handb Exp Pharmacol 2012:1-26.
3. Mathews M, Gratz S, Adetunji B, et al. Antipsychotic-Induced Movement Disorders: Evaluation and Treatment. Psychiatry 2005;2:36-41.
4. Atkins S, Detke HC, McDonnell DP, et al. A pooled analysis of injection site-related adverse events in patients with schizophrenia treated with olanzapine long-acting injection. BMC Psychiatry 2014;14:7.
5. Walder A, Baumann P. Mood stabilizer therapy and pravastatin: higher risk for adverse skin reactions? Acta Medica 2009;52:15-8.
6. Christen S, Gueissaz F, Anex R, Zullino DF. Acute generalized exanthematous pustulosis induced by olanzapine. Acta Medica 2006;49:75-6.
7. Duggal MK, Singh A, Arunabh, et al. Olanzapine-induced vasculitis. Am J Geriatr Pharmacother 2005;3:21-4.
8. Chue P, Jones B, Taylor CC, Dickson R. Dissolution profile, tolerability, and acceptability of the orally disintegrating olanzapine tablet in patients with schizophrenia. Can J Psychiatry 2002;47:771-4.
9. Rao A, Francis N, Morar N. Clozapine-induced symmetrical drug-related intertriginous and flexural exanthema: first reported cases. Br J Dermatol 2012;166:1142-3.
10. Bhatti MA, Zander J, Reeve E. Clozapine-induced pericarditis, pericardial tamponade, polyserositis, and rash. J Clin Psychiatry 2005;66:1490-1.
11. Fong SY, Au Yeung KL, Tosh JM, Wing YK. Clozapine-induced toxic hepatitis with skin rash. J Psychopharmacol 2005;19:107.
12. Stanislav SW, Gonzalez-Blanco M. Papular rash and bilateral pleural effusion associated with clozapine. Ann Pharmacother 1999;33:1008-9.
13. Bosonnet S, Dandurand M, Moati L, Guillot B. Acute generalized exanthematic pustulosis after intake of clozapine (leponex). First case]. Ann Dermatol Venereol 1997;124:547-8.
14. Bujor CE, Vang T, Nielsen J, Schjerning O. Antipsychotic-associated psoriatic rash - a case report. BMC Psychiatry 2017;17:242.
15. Nath S, Rehman S, Kalita KN, Baruah A. Aripiprazole-induced skin rash. Ind Psychiatry J 2016;25:225-7.
16. Xu M, Zhou Y, Ni Y, et al. Tolerability and Pharmacokinetic Comparison of Oral, Intramuscular, and Intravenous Administration of Levosulpiride After Single and Multiple Dosing in Healthy Chinese Volunteers. Clin Ther 2015;37:2458-67.
17. Baruch Y, Tadger S, Plopski I, Barak Y. Asenapine for elderly bipolar manic patients. J Affect Disord. 2013;145:130-2.
18. Lasic D, Cvitanovic MZ, Uglesic B, Visic V, Hlevnjak I. Exanthema medicamentosum as a side effect of promazine. Psychiatr Danub 2011;23:194-7.
19. Liu CT, Hsieh TH. Osmotic-controlled release oral delivery system (OROS) paliperidone-related pruritic rash. J Clin Psychopharmacol 2011;31:525-6.
20. Akay BN, Sanli H. Symmetrical drug-related intertriginous and flexural exanthem due to oral risperidone. Pediatr Dermatol 2009;26:214-6.