

# Psychodermatologic Complications Associated with Amphetamine Therapy for Hypersomnias of Central Origin

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## BACKGROUND AND OBJECTIVE

- Stimulant therapy for narcolepsy or idiopathic hypersomnia is generally safe and effective (1). However, there are some psychiatric complications, including psychosis, anxiety, irritability, depression, and insomnia (2-3).
- Psychosis is rare in narcoleptics treated with stimulants, although the likelihood of psychosis or hallucinations induced by stimulants may be increased in patients with co-morbid psychiatric conditions (4).
- Obsessive-compulsive behavior associated with stimulant therapy for attention-deficit hyperactivity disorder has been reported (5-6).
- We describe psychodermatologic complications in four patients treated with stimulants for hypersomnia.

## METHODS

- Patients seen at the SDC with narcolepsy or idiopathic hypersomnia and psychodermatologic symptoms were identified.
- Charts were reviewed for demographic and clinical features, type, dosage and duration of use of stimulants, and response to drug withdrawal.

## RESULTS

- Four patients were identified; three women. Age at evaluation was 21-54 years (median 24.5) (Table 1).
- Dermatologic symptoms commenced 1 month to 7 years (median 12.5 months) after commencing stimulant therapy.
- Drugs used were dextroamphetamine/amphetamine (Adderall®) in 3; SR methylphenidate in one (Table 3).
- Doses ranged between 60-160 mg daily (median 80 mg) (Table 3).
- All patients picked skin off their faces and two plucked eyebrow hair (Table 2).
- Skin picking behavior ceased in all cases within a month of discontinuing stimulants [3] or reducing the dose [1] (Table 3).
- Symptoms recurred in two patients on medication re-challenge (Table 3).

Table 1. Demographics

Patient	#1	#2	#3	#4
Gender	Female	Female	Female	Male
Age (years) at initial evaluation at SDC	26.6	23.6	20.8	44.5
Sleep Medicine Diagnosis	Idiopathic hypersomnia with long sleep time	Narcolepsy without cataplexy	Narcolepsy with cataplexy	Narcolepsy without cataplexy

Table 2. Psychodermatologic Characteristics

Patient	#1	#2	#3	#4
Psychodermatologic symptoms	Non-pruritic painful draining facial lesions; Denied intentional production	Believed hair was growing under the skin and saw black objects that she pulled out	Obsessed with and scratching blemishes on her skin Feared intruders and thought someone was breaking into home;	Found small black "parasites" on his face and around his eyes
Dermatology Consultation Diagnoses	Dermatitis artefacta	Acne excoriee	None	Delusional parasitosis
Psychiatric Comorbidity	Obsessive-compulsive disorder (OCD) with compulsive hand washing	None	None	Depressive disorder NOS, panic disorder with agoraphobia, obsessive compulsive personality traits

Table 3. Medication Characteristics

Patient	#1	#2	#3	#4
Medication associated with symptom onset	dextroamphetamine/amphetamine 40 mg bid	dextroamphetamine/amphetamine 40 mg bid	dextroamphetamine/amphetamine 10 mg bid	Methylphenidate SR 40 mg bid
Time between medication initiation and symptom onset	1 month	7 months	1 month	7 years
Length of medication trial	12 months	12 months	20 months	7 years
Symptom course	One month after medication was stopped, the lesions resolved	One month after medication was stopped, the lesions resolved	One month after medication was stopped, skin picking behavior and paranoid thoughts resolved	methylphenidate reduced to 60 mg qd: "Infestation" eliminated at 2 month follow-up
Medication re-challenge	None	Pemoline 18.75 mg and dextroamphetamine/amphetamine XR 30 qd, both associated with skin lesion return	Within one day of introducing SR methylphenidate 36 mg with Modafinil 600 mg, skin picking restarted.	None

## CONCLUSIONS

- Psychodermatologic manifestations were similar in all 4 patients, consisting predominantly of skin picking behaviors involving the face accompanied by delusional symptoms in two.
- The relationship to stimulants was demonstrated by the time course.
- Underlying obsessive-compulsive traits may have predisposed.
- Three of the four patients were using the drug at less than the recommended maximum dose (1).
- Sleep physicians should be aware of this rare complication of stimulant treatment.

## References

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