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## NOVELTIES IN DERMATOLOGY

# Psychotropic Treatment of Psychodermatologic Disorders

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### PALABRAS CLAVE

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### Abstract

Psychotropic drugs act by correcting the chemical changes associated with mental disorders and their symptoms. The use of such drugs in medical specialties other than psychiatry is not new and has been growing since a relationship has been demonstrated between mental states and the skin. Besides the so-called psychodermatoses, there are many skin diseases directly related to stress. For this reason, and in view of the reluctance of many patients to consult a psychiatrist, all dermatologists should have a basic understanding of the pharmacology and use of psychotropic drugs.

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### Tratamiento con psicofármacos de los trastornos psicodermatológicos

### Resumen

Los psicofármacos actúan normalizando las modificaciones químicas que se producen en las enfermedades mentales o en sus síntomas. La utilización de los psicofármacos en campos distintos de la Psiquiatría no es nada nuevo. Su utilidad es cada vez más frecuente, pues se ha comprobado la existencia de una relación entre la psique y la piel. Aparte de las llamadas psicodermatosis muchas enfermedades dermatológicas están directamente relacionadas con el estrés; por eso, y ante la reticencia de muchos enfermos de ser visitados por el psiquiatra, es importante que el dermatólogo tenga unos conocimientos básicos de la farmacología y el manejo de los psicofármacos.

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## Introduction

Psychotropic drugs are used to treat mental disorders (depression, schizophrenia, anxiety, etc) and abnormal mental states that manifest themselves through various signs and symptoms (insomnia, aggression, anxiety, etc).

They act on the brain by correcting the chemical changes associated with mental disorders and their symptoms.

Today their use is increasingly common in fields other than psychiatry. Besides the so-called psychodermatoses, there are many skin diseases directly related to stress.<sup>1</sup>

These drugs are generally classified into 3 categories:

1. Benzodiazepines (BZDs)
2. Antidepressants
3. Antipsychotics

## Benzodiazepines

BZDs are the main anxiolytics in use today, and they have a wide range of therapeutic uses.

### Mechanism of Action

BZDs act on the limbic system (the amygdala and hippocampus) by directly increasing the efficiency of  $\gamma$ -aminobutyric acid (GABA), the major neurotransmitter in the central nervous system.

### Interactions

BZDs are not implicated in many drug-drug interactions, and the repercussions of such interactions are usually not clinically significant. Interactions can be divided into 2 types:

1. Pharmacodynamic interactions at biologically active sites that give rise to synergistic, additive, or antagonistic pharmacologic effects
2. Pharmacokinetic interactions that affect the absorption, distribution, plasma protein binding, metabolism, and excretion of the BZDs

BZDs interact with the following drugs: anticoagulants, anesthetics, neuromuscular blocking drugs, anorexigens, antacids, anticholinergic agents, anticonvulsants, tricyclic antidepressants (TCAs), monoamine oxidase inhibitors (MAOIs), serotonergic antidepressants, alcohol, neuroleptic agents, lithium, xanthines,  $\beta$ -blockers, tuberculostatic agents, antibiotics, digoxin, and opiates.<sup>1,2</sup>

### Pharmacologic Action of BZDs

The pharmacologic action of BZDs is primarily anxiolytic, sedative/hypnotic, anticonvulsant, muscle relaxant, and anesthetic.

All BZDs have the same pharmacologic actions but, depending on the pharmacokinetic profile of each drug and

perhaps on slight pharmacodynamic differences, certain effects are more pronounced in certain drugs of this class. Their clinical use is determined by these minor differences.

BZDs can be categorized according to potency or by duration of effect.

Duration of effect depends on the half life of the drug, the volume of distribution, and whether or not active metabolites are present.

We can classify BZDs by duration of effect as follows:

1. Short acting: triazolam, oxazolam, and midazolam
2. Medium acting: alprazolam (short-to-medium), bromazepam, nitrazepam, lorazepam, flunitrazepam, and oxazepam (medium-to-long)
3. Long acting: clorazepate, clobazam, chlordiazepoxide, clonazepam, diazepam, flurazepam, and ketazolam

There is also an extended-release formulation of alprazolam—called alprazolam XR—which can be administered once or twice daily. However, the necessary dose may be higher for the XR formulation than for standard alprazolam.

BZDs can also be classified according to potency, as follows<sup>1-3</sup>:

1. Low potency: chlordiazepoxide and oxazepam
2. Medium potency: diazepam, clorazepate, and clobazepam
3. High potency: lorazepam, clonazepam, flunitrazepam, and alprazolam

### Adverse Effects

The adverse effects associated with BZDs are well known, partly because of the very large number of patients treated with these drugs. Perhaps the most important of these effects is the development of tolerance and dependence.<sup>1-3</sup>

The following adverse effects are all possible, although unlikely:

1. Psychological state and performance: These problems include impaired psychomotor performance, learning difficulties and anterograde amnesia, hostility or aggressiveness, confusion, disorientation and lethargy, dysarthria, ataxia, exacerbation of the symptoms of dementia, and inability to react to difficult situations in terms of mood, taking action, and behavior.
2. Heart and respiration: BZDs can be dangerous in patients with chronic pulmonary disease because these drugs can cause respiratory depression when taken in conjunction with other depressants, such as alcohol. When given intravenously, BZDs must be administered slowly and in low doses to minimize these effects.

### Contraindications of BZDs

Although BZDs are the most widely prescribed psychotropic drugs, there are both absolute and relative contraindications to their use.<sup>4,5</sup>

1. Absolute contraindications: sleep apnea, pregnancy (first trimester), alcohol and drug addiction, respiratory

- insufficiency, dementia, and severe cognitive disorders
2. Relative contraindications: kidney or liver failure, intense snoring, mild cognitive disorders, and final days of pregnancy

## Antidepressants

While antidepressants are used primarily to treat depression, their broad therapeutic range means that they may be used in most psychiatric diseases. They are also the drugs most often prescribed by dermatologists to treat psychodermatoses.<sup>6-8</sup>

We now know that depression is caused by neurotransmitter dysregulation or imbalances.

As serotonin may be one of the neurotransmitters most implicated in depression, antidepressants that increase serotonin levels are generally very effective.

Low serotonin levels can give rise to anxiety, depression, aggressiveness, pain, and headache.

However, excessively high levels are also associated with unwanted symptoms, such as nausea, insomnia, restlessness, sexual dysfunction, and tremors.

Norepinephrine also plays a role in depression that is just as important as that of serotonin, and antidepressants have recently been developed that act on this neurotransmitter.<sup>1,2,9</sup>

Norepinephrine plays a major role in mood, learning and memory, and in the regulation of the sleep-wake cycle, the hypothalamic-pituitary axis, and the parasympathic nervous system (which controls the heart, blood vessels, and gastrointestinal tract, among other organs).

The signs and symptoms of depression are very varied and differ greatly in severity:

1. Depressive mood: apathy, sadness, and loss of memory
2. Inhibition of thought processes: persistent pessimistic thoughts, circular thinking, suicidal thoughts, lack of initiative
3. Physical symptoms: pain, digestive disorders, and anorexia.
4. Cutaneous manifestations: psychogenic pruritus, pain syndromes, and dysmorphophobia (all of which are often signs of depression, so that their treatment is chiefly based on antidepressants).

Antidepressants can be classified into the following classes:

1. MAOIs
2. TCAs
3. Selective serotonin reuptake inhibitors (SSRIs)
4. Serotonin-norepinephrine reuptake inhibitors
5. Norepinephrine reuptake inhibitors
6. Dopamine reuptake inhibitors

## Monoamine Oxidase Inhibitors

MAOIs act by inhibiting the activity of monoamine oxidase. They are highly effective drugs primarily indicated in

the treatment of atypical depression, panic disorders, obsessive-compulsive disorders, and anxiety disorders in which the predominant symptom is depression. It is, nonetheless, important to stress that these antidepressants are now almost never prescribed because of the large number of adverse effects and interactions associated with their use. This decline in the use of MAOIs has been particularly marked since the advent of modern antidepressants, which are associated with far fewer adverse effects.<sup>3,9</sup>

## Mechanism of Action

The function of monoamine oxidase, an enzyme found in cells throughout the body, is to inactivate amines. There are 2 main types of monoamine oxidase, namely, monoamine oxidase-A, which breaks down norepinephrine and serotonin, and monoamine oxidase-B, which has a very weak affinity for these 2 neurotransmitters. Both isoenzymes metabolize dopamine.

MAOIs block the catalytic action of monoamine oxidase. Most of these drugs are described as irreversible because they permanently deactivate the enzyme, thereby producing an effect that lasts for 1 to 2 weeks.

MAOIs are also divided into the following 2 groups according to the type of inhibitory action they exercise:

1. Nonselective MAOIs: isocarboxazid, nialamide, phenelzine, tranylcypromine, iproniazid and iproclozide
2. Monoamine oxidase-A inhibitors: moclobemide and toloxatone

## Adverse Effects

The numerous adverse effects associated with these drugs include insomnia, restlessness, anorexia, dry mouth, constipation, nausea and vomiting, urine retention, transient impotence, increased blood pressure in hypertensive patients, skin rash, vertigo, drowsiness, and orthostatic hypotension.

## Contraindications

The following are some of the most important contraindications to the use of MAOIs:

1. Cerebrovascular insufficiency
2. Cardiovascular disease
3. Hypertension
4. Psychomotor agitation

## Interactions

MAOIs are the group of antidepressants associated with the greatest number of interactions. The main food interaction is with tyramine (a substance found in a wide range of foods).

High levels of tyramine are found in aged cheeses, wines and alcohol in general, in cured meat products such as chorizo, salami, mortadella and sausages, and in smoked or marinated meat and fish products.

Other food products that may interact with MAOIs include overripe fruits, especially bananas and avocados, cola drinks, coffee, chocolate, and pâté.

The interaction between tyramine and MAOIs may provoke a hypertensive crisis that could lead to the rupture of a cerebral artery and cause a cerebrovascular accident.

When prescribing MAOIs, physicians should give the patient a complete list of prohibited drugs. Interactions with other psychoactive drugs include decongestants used to treat colds and some allergies as well as drugs from all the other classes of antidepressants, which can also cause severe interaction problems if taken with MAOIs.<sup>1-5,9</sup>

## Tricyclic Antidepressants

In 1956, while working in the Münsterlingen psychiatric clinic in Zurich, Ronald Kuhn discovered the antidepressant properties of imipramine through clinical observation of 40 cases.

In 1958, Kielhoz and Bottega confirmed the antidepressant action of imipramine and, later that year at the II International Congress of Psychiatry in Zurich, Schmidlin suggested the term thymoleptic to designate the antidepressants of the imipramine type whose chief characteristic is that they are mood elevators.

Imipramine is the antidepressant that has generated the most research, the highest quality research, and the greatest number of citations in the literature (in 1970 Angst found more than 4500 articles on the subject), and it is still the antidepressant most often used for comparison in double-blind clinical trials investigating new drugs.<sup>9</sup>

## Mechanism of Action

The therapeutic action of TCAs is based on their ability to do the following:

1. Inhibit the reuptake of neurotransmitters
2. Increase the availability of neurotransmitters
3. Produce functional alterations in receptors

The antidepressant properties of TCAs are related to their ability to block the reuptake of serotonin, norepinephrine, and to a lesser degree, dopamine. They also antagonize many receptors (histamine, muscarinic cholinergic, and alpha adrenergic receptors, among others).

Inhibition of muscarinic cholinergic receptors causes dry mouth, blurred vision, urine retention, constipation, and glaucoma.

Inhibition of H<sub>1</sub> histamine receptors causes sedation and weight gain.

Inhibition of alpha adrenergic receptors causes orthostatic hypotension, dizziness, nasal congestion, and delayed ejaculation.

The most widely used TCAs are imipramine (since 1956), amitriptyline, doxepin, chlorimipramine, and nortriptyline.

However, these drugs are increasingly less often prescribed owing to the large number of associated adverse effects.<sup>8-10</sup>

## Indications

TCA's are indicated in the treatment of depressive disorders, obsessive-compulsive disorders, panic disorders with or without agoraphobia, nocturnal enuresis, eating disorders, chronic pain, premenstrual syndrome, trichotillomania, and nail biting.

## Adverse Effects of Tricyclic Antidepressants

Most of the adverse effects of TCAs vary from one drug to another and are associated with the pharmacological properties of each drug.

In most cases, they are mild and the patient develops tolerance shortly after start of treatment (1 or 2 weeks). Withdrawal of treatment is rarely necessary. It is, however, important to carefully explain to patients starting treatment with one of these drugs what adverse effects may occur.

Since there are so many possible adverse effects, we will mention only the most important.

## Anticholinergic Effects

The anticholinergic adverse effects include dry mouth, blurred vision, urine retention, constipation, and intraocular pressure.

## Cardiovascular Effects

Cardiovascular adverse effects include palpitations, vertigo, syncope, decreased blood pressure (especially orthostatic hypotension), tachycardia, and arrhythmias.

Since the cardiac depressant effects of TCAs may lead to heart failure, great care should be exercised when prescribing these drugs to older patients and patients with heart disease because of the risk of decompensating a previously stable heart condition.

The quinidine-type activity of these drugs gives rise to electrocardiographic abnormalities, including lengthening of the PR and QT intervals, broadening of the QRS complex, and abnormalities in the ST segment of the T wave and the appearance of the U wave.<sup>8-10</sup>

These electrocardiographic changes may even occur at therapeutic doses and are of greater concern in older patients, for whom an electrocardiogram should be obtained before starting treatment and at regular intervals thereafter.

Signs of serious toxicity include severe arrhythmias (extrasystoles, ventricular tachycardia, and ventricular fibrillation). Since these abnormalities could lead to cardiac arrest, immediate withdrawal of treatment is imperative.

## Other Adverse Effects

Other adverse effects include sedation and weight gain due to H<sub>1</sub> histamine receptor blockade. Increased appetite and weight gain are more marked with amitriptyline.

It is important to emphasize that these drugs can induce seizures even in nonepileptic patients because they

lower the convulsive threshold. They can also give rise to episodes of sweating, impotence, confusion, memory loss, and the switch from mania to hypomania.<sup>9</sup>

## Contraindications

The contraindications can be classified as absolute or relative:

1. Absolute. The only absolute contraindication to tricyclic use is recovery from acute myocardial infarction (4-6 weeks).
2. Relative. In the situations listed below, TCAs may be used if necessary but only under strict surveillance and after careful assessment of the risk-to-benefit ratio.  
Heart disease: heart failure and cardiac arrhythmias being treated with antiarrhythmic therapy or  $\beta$ -blockers  
Other conditions: epilepsy, closed-angle glaucoma, enlarged prostate, cardiorespiratory failure, pheochromocytoma, and first trimester of pregnancy (when treatment is necessary for women in their first trimester, imipramine is recommended)

Among the TCAs, doxepin is of particular interest to dermatologists because it is an  $H_1$ -antihistamine 800 times more potent than dexchlorpheniramine and is therefore very useful in cases of urticaria that do not respond to antihistamines. Doxepin can also be prescribed for neurotic excoriations.

When it is used to treat urticaria, the starting dosage is 25 mg/d. This can be increased to a maximum dosage of 100 mg, which should never be exceeded. At least 2 weeks will elapse before any therapeutic effect will be evident.

Physicians should not, however, forget that doxepin is a TCA and should, when prescribing this agent, bear in mind the possible adverse effects, especially those affecting the heart, which can be extremely serious, especially in older patients and patients with arrhythmias.<sup>1-3,8-10</sup>

## Interactions

TCAs block the antihypertensive effects of guanethidine, reserpine and, to a lesser degree, clonidine.

The association of nitroglycerin with tricyclics produces a sudden drop in blood pressure.

Since TCAs enhance the sedative effects of alcohol, its consumption must be prohibited in patients taking these agents.

Phenytoin, cimetidine, amoxapine, levodopa and antidiabetic agents also interact with TCAs.

## Selective Serotonin Reuptake Inhibitors

SSRIs are a class of antidepressants whose chief action is to inhibit the reuptake of serotonin. They are characterized by their antidepressant efficacy and, unlike the tricyclic antidepressants, have low levels of cardiac

toxicity and little or no antihistamine, antiadrenergic and anticholinergic activity. They are not thought to cause weight gain (although this has only been demonstrated for Prozac) and are associated with only a low incidence of orthostatic hypotension. Overdose is not lethal, and they do not potentiate the effects of alcohol, although it is recommended that patients on this drug should not drink excessively.

The first SSRI to be developed was fluoxetine, considered to be the prototype drug of this family of antidepressants. The synthesis and development of fluoxetine began in 1971 when the pharmacologist Ray Fuller joined Eli Lilly.

The SSRIs available in Spain are fluoxetine, fluvoxamine, paroxetine, sertraline, citalopram, and escitalopram.<sup>1-3,8-10</sup>

SSRIs are currently the most prescribed antidepressants and the most useful ones, as we will see, in the treatment of psychodermatologic disorders.<sup>9,11,12</sup>

They can be prescribed to pregnant women, although in such cases the agents with the shortest half-life, such as sertraline and paroxetine, should be used. Fluoxetine may also be used even in the first trimester of pregnancy, based on evidence of its safety and lack of teratogenicity.

## Indications

In addition to their use in depression, SSRIs may also be prescribed for panic disorders, chronic anxiety, obsessive-compulsive disorders, social phobia, eating disorders (bulimia and anorexia), premature ejaculation, premenstrual dysphoric disorder, gambling addiction, kleptomania, and chronic pain.<sup>13</sup>

## Adverse Effects

The most commonly reported adverse effects of SSRIs are nausea and constipation (which are both more common in patients treated with fluvoxamine) as well as headache and nervousness (which also occur more frequently with some drugs of this class than others), insomnia, anxiety, some cases of loss of sexual desire, delayed ejaculation, paresthesia, hyperhidrosis (more common with citalopram), and tremors (more common with sertraline).<sup>1-5,14-16</sup>

## Cutaneous Adverse Effects

Treatment with SSRIs in combination with nonsteroidal anti-inflammatory drugs or low doses of acetylsalicylic acid gives rise to hematologic disorders, such as petechiae, ecchymosis, metrorrhagia, hematuria, melena, and hematemesis. These adverse effects occur particularly in patients treated with paroxetine. Vasculitis of the lower limbs and spontaneous ecchymosis have also been reported as adverse effects of paroxetine. The same adverse effects have also been reported, although less frequently, in patients receiving fluoxetine.<sup>11</sup>

There are many other possible adverse effects, although their incidence is much lower. These include urticaria, angioedema, erythema nodosum, Stevens-Johnson syndrome, diffuse alopecia (reversible), acneiform eruption, hirsutism and hypertrichosis, acute exanthematous

pustulosis, psoriasis flares, and hyperpigmentation (after many years of treatment).

### Selective Serotonin-Norepinephrine Reuptake Inhibitors

As their name indicates, serotonin-norepinephrine reuptake inhibitors act by inhibiting the reuptake of serotonin and norepinephrine.

#### Venlafaxine

Venlafaxine is a drug indicated for clinically depressed patients and also depression associated with anxiety. It is metabolized in the liver by the isoenzyme CYP2D6.

The dosage ranges from 75 to 150 mg given 2 or 3 times a day, with a maximum dose of 375 mg/d.

The most common adverse effects are nausea, drowsiness, dry mouth, vertigo, constipation, nervousness, dysfunctional ejaculation, asthenia, sweating.

More recently, duloxetine, a new serotonin-norepinephrine reuptake inhibitor has come onto the market in Spain.<sup>9</sup>

### Selective Norepinephrine Reuptake Inhibitors

Reboxetine is an antidepressant drug that acts as a norepinephrine reuptake inhibitor but does not inhibit the reuptake of serotonin. Its use is indicated in clinical depression.<sup>14,17</sup>

Ninety-seven percent of reboxetine binds to plasma proteins and the drug is metabolized by hydroxylation, 2-O-dealkylation, and oxidation. Some 75% of drug is eliminated in urine. The dose should be adjusted in older patients and patients with renal impairment.

The most common adverse effects are dry mouth, constipation, sweating, impotence, insomnia, hypotension, and vertigo.

### Other Antidepressant Drugs

Other antidepressants on the market that are not used in the treatment of psychodermatologic problems include the dopamine reuptake inhibitors (such as bupropion) and mirtazapine, a drug with a dual mode of action that enhances the release of norepinephrine and serotonin while at the same time blocking the postsynaptic serotonin receptors of the 5HT-2 and 5-HT3 subtype.

### Antipsychotic Drugs

Antipsychotics are a group of drugs that play an important role in psychiatry. However, their use is much more difficult to manage than that of the antidepressants discussed above because of the complexities of their dosage and particularly because of the potential adverse effects, some of which can be very serious.<sup>17,18</sup>

Antipsychotic drugs are generally used to treat different forms of schizophrenia, although they can also be used in manic disorders and syndromes that include agitation, among other indications.<sup>8-10,16,17</sup>

Schizophrenia is characterized by 3 groups of symptoms:

1. Distortions of reality: delusional ideas and hallucinations, including delusional parasitosis
2. Disorganization: impaired thought processes and bizarre behavior
3. Psychomotor deficits: flat affect, poverty of speech and cognitive impairment, poor social interaction.

Antipsychotic drugs can be divided into the following 2 classes:

1. Typical. This group includes chlorpromazine (introduced in 1952 by Delay and Deniker), pimozide, and haloperidol.
2. Atypical. This group includes risperidone, olanzapine, amisulpride, clozapine, sulpiride, ziprasidone and quetiapine. The atypical antipsychotic agents are more recent and have fewer adverse effects.<sup>10,16-18</sup>

### Adverse Effects of Typical Antipsychotics

As mentioned above, antipsychotics are associated with a wide range of adverse effects, some of which are serious, making their prescription more difficult to manage.

Acute extrapyramidal symptoms include akathisia, acute dystonia, and parkinsonism syndrome in addition to the so-called neuroleptic malignant syndrome, a potentially lethal complication of antipsychotic therapy characterized by hyperthermia, rigidity, confusion, diaphoresis, as well as elevation of white blood cells and creatinine phosphokinase.

They also cause unwanted sedation, hypotension, dry mouth, constipation, blurred vision, urine retention, and allergic reactions.<sup>1-6,19,20</sup>

Another important group of adverse effects are those that affect the cardiovascular system. Treatment with antipsychotics can cause ventricular arrhythmia, lengthening of the Q-T interval, and also induce changes in T-waves and U wave. For this reason, an electrocardiogram should be obtained before and during treatment to monitor for the occurrence of these adverse effects.<sup>10,17,19,21</sup>

Combining antipsychotic and antidepressant therapies is not recommended because the associated adverse effects are similar and may be potentiated.

As mentioned earlier, the atypical antipsychotics have fewer adverse effects. However, when these effects appear they are of the same type as those listed above, although less severe.

### Other Psychotropic Drugs Used in Psychodermatologic Disorders

We will now focus on 3 drugs that do not belong to any of the above groups. Knowledge of these drugs is of interest because of their usefulness in treating psychodermatologic disorders.

## Naltrexone

Naltrexone is an orally active pure opioid receptor antagonist that blocks the opioid receptors with greater affinity than the opioids themselves, competing with the agonists.

It does not produce tolerance or dependence. It is a drug with low toxicity and few adverse effects (primarily gastric discomfort during the first few weeks of use and slight anorexia).

Naltrexone is contraindicated in patients aged under 18 years of age, pregnant and breastfeeding women, and patients with acute liver disease. It can give rise to transient elevations in transaminase levels in healthy individuals.<sup>1-6,10,19-21</sup>

Naltrexone can prevent compulsive relapses in patients motivated to maintain abstinence even in the presence of conditioned withdrawal response or when dealing with unforeseen situations or mood alterations likely to provoke a relapse.

In dermatology, naltrexone is useful in the treatment of psychogenic pruritus (see below).

## Gabapentin

The antiepileptic drug gabapentin is an analog of the GABA neurotransmitter used to treat epilepsy and peripheral neuropathic pain syndrome. Its only use in dermatology is the treatment of patients with postherpetic neuralgia, in whom it alleviates the neuralgia and improves sleep, with a corresponding improvement in quality of life.

Gabapentin is associated with few drug-to-drug interactions. Cimetidine slightly reduces the renal excretion of gabapentin, and antacids reduce its bioavailability.

This drug should not be prescribed to pregnant or breastfeeding women, although there is insufficient data available concerning such use.

Gabapentin overdose causes dizziness, double vision, slurred speech, drowsiness, lethargy, and mild diarrhea. When taken in combination with carbamazepine, it may give rise to leukopenia.<sup>18-20</sup>

## Treatment of Psychodermatologic Disorders

### Obsessive-Compulsive Disorders and Mental Disorders with Dermatological Repercussions

The most common obsessive-compulsive disorders are neurotic excoriations and trichotillomania.<sup>22-24</sup>

#### Neurotic Excoriations

Neurotic excoriations are self-inflicted lesions created by a patient who feels the need to compulsively scratch or squeeze their own skin in the presence of the slightest skin lesion or even when there is only a slight itch. This condition most often affects middle-aged women (30-50 years of age). Patients are usually aware of the self-destructive nature of their behavior,

but report that they are unable to stop the compulsive scratching.<sup>25-27</sup>

#### Excoriated Acne

Excoriated acne is a condition that occurs in patients who are unable to resist touching, squeezing, scratching and picking at acne lesions. This behavior results in scars that are difficult to eradicate. Like neurotic excoriations, excoriated acne is more common among women.<sup>28,29</sup>

#### Trichotillomania

Trichotillomania is a compulsive urge to pull out one's own hair, mainly from the scalp, eyebrows, and eyelashes. It is a form of traumatic alopecia.<sup>30</sup>

### The Treatment of Obsessive-Compulsive Disorders

These 3 dermatologic conditions are treated with the drugs used to treat obsessive-compulsive disorders. Currently, the drugs most often used in such cases are SSRIs.

Note that fluoxetine and sertraline are the only SSRIs approved for use in children.

The dose of sertraline appropriate in children is 100 to 200 mg.

In adults, in addition to those 2 drugs, we can also prescribe paroxetine (20-40 mg/d), citalopram, and more recently escitalopram (10-20 mg/d and a maintenance dose of 5 mg/d). Because they are the most anxiolytic of the SSRIs, citalopram and escitalopram are the most appropriate choices for patients who report high levels of anxiety.

Fluvoxamine at a dose between 100 and 200 mg/d can also be prescribed.

Serotonin-norepinephrine reuptake inhibitors are also used to treat obsessive-compulsive disorders, although there is currently less evidence concerning their long-term use because they are more recent.

Venlafaxine is highly effective at a dose of 150 to 300 mg/d. Note that a clinical response is only obtained 4 to 8 weeks after start of treatment.<sup>1-6, 18,19,21</sup>

Neither should we forget the TCAs. Although they are, as we mentioned earlier, used less often today because of their adverse effects, TCAs can be prescribed when necessary or in case of failure to respond to treatment with SSRIs. Doxepin, for example, can be prescribed at an initial dose of 25 mg and can also be administered in a 5% cream that also has an antipruritic effect.

Clomipramine can be used in children and adolescents at a dosage not exceeding 3 mg/kg/d.<sup>23,24,27,29,30</sup>

#### Body Dysmorphic Disorder

Patients with body dysmorphic disorder (BDD) are excessively concerned and preoccupied by a minor or perceived bodily defect that they believe, without reasonable cause, to be very noticeable to others when objectively it is not. There is no data on the pathogenesis of this disorder. These patients have a distorted perception of their own bodies.<sup>31-33</sup>

## Treatment of BDD

Treating patients with BDD is a difficult task for the dermatologist. They tend to be complicated patients who, apart from requiring pharmacologic therapy, usually need psychological treatment. They are sometimes bad-tempered and tend to blame their problem on the dermatologist, even displaying aggressive behavior during visits.

SSRIs are the most effective drugs for treating BDD, although only 20% of patients with BDD become symptom-free even with treatment. The doses required are considerably higher than those prescribed for depression.

When fluoxetine is used, the dosage is 50 mg/d. In the case of fluvoxamine, the dosage is 260 mg/d. The minimum duration of treatment for both these drugs is 2 to 4 months.<sup>31-33</sup>

## Delusional Parasitosis

Delusional parasitosis is a serious disease and one that is difficult for the dermatologist to manage because its treatment requires antipsychotic drugs rather than SSRIs.<sup>34</sup>

Pimozide is the antipsychotic medication most often used to treat this disease. An initial dose of 1 to 2 mg/d is gradually increased by 1 or 2 mg per week until a clinical response is obtained. Improvement is usually observed at a dosage of 2 to 4 mg/d. In no case should the dosage exceed 6 mg/d. Patients who do not respond to treatment should be referred to a psychiatrist. Depending on clinical response, the treatment usually lasts some 5 months.

The following 2 drugs can also be used to treat this disorder: risperidone at a dosage of 2 to 6 mg/d and olanzapine at an initial dose of 5 mg, which is gradually increased to 10 mg and up to a maximum of 20 mg.

While psychiatrists generally use olanzapine to treat this disease (because it is associated with fewer adverse effects), we must be guided by the medical literature, and there is more evidence supporting the use of pimozide.<sup>35-37</sup>

## Dermatitis Artefacta

Patients with dermatitis artefacta produce self-inflicted skin lesions and deny responsibility for their creation.

The treatment of this condition is complex and requires a multidisciplinary approach including expertise in dermatology, internal medicine, and psychiatry. The drugs used to treat this condition are the same as those used in depression (SSRIs).<sup>38</sup>

## Miscellaneous Disorders

### Pain Disorders

Pain disorders are a common cause for consultation in dermatology. They occur mostly in women and often involve a depressive component or are a symptom of depression.

Both urodynia and vulvodynia can be treated with SSRIs, serotonin-norepinephrine reuptake inhibitors (venlafaxine), or TCAs, such as clomipramine at a dosage of 75 to 150 mg/d. We believe that doxepin can be useful in the

treatment of this disorder when administered at the doses recommended for the treatment of urticaria.<sup>39</sup>

## Psychogenic Pruritus

We define psychogenic pruritus as pruritus that is a cutaneous manifestation of a psychological disorder. In practice, we use the term psychogenic pruritus when we are unable to identify the cause of itching. The disorder takes the form of paroxysmal attacks that correlate closely with emotional states.<sup>40</sup>

Anal and vulvar itching and neurodermatitis can all be ruled out as incidences of psychogenic pruritus. Neurodermatitis is a cutaneous response to energetic scratching for no apparent reason by the patient. The areas most often scratched by patients with neurodermatitis are the occipital area, the knees, and the pubis.

Psychogenic pruritus is treated with topical corticosteroids and SSRIs. In view of the nervous component, citalopram and escitalopram would be the SSRIs to prescribe. The initial dosage should be 10 mg/d, and in extreme cases may be increased to a maximum of 20 mg/d. The dosage is then tapered gradually until a maintenance level of 5 mg/d is reached.

Naltrexone (5 mg/d) can also be used to treat psychogenic pruritus.<sup>40,41</sup>

## Urticaria

Although urticaria is not considered to be a psychodermatologic disease, in recalcitrant cases that prove resistant to treatment with antihistamines, doxepin (a TCA) can be prescribed. Doxepin is an antihistamine 800 times more potent than diphenhydramine. The starting dosage of 25 mg/d can be increased gradually to a maximum of 100 mg/d.

However, the prescribing clinician should remember that doxepin is a TCA; all the potential adverse effects should be taken into consideration. Effects on the heart, which may be serious in this type of patient and in patients with arrhythmia, are of particular concern.<sup>42</sup>

## Postherpetic Neuralgia

In cases of postherpetic neuralgia, we can use the TCA tryptizol (25 to 75 mg/d), preferably taken at night because this drug causes drowsiness. Special care must be taken when prescribing tryptizol to older patients in whom the adverse effects are generally more marked.

Gabapentin is also used to treat postherpetic neuralgia at an initial dosage of 100 to 200 mg/d, increasing to 300 mg/d at 3 to 5 days. The dose can be increased by 300 mg every 3 to 5 days thereafter to a maximum of 900 mg/d.<sup>43</sup>

## Dermatological Diseases With Psychological Repercussions

There are many skin diseases—seborrheic dermatitis, dyshidrosis, psoriasis, lichen planus, androgenic alopecia, and alopecia areata, to cite just a few—which are known to



be influenced by stress and which may in turn also provoke anxiety and even depression in the patient. In extreme cases, when anxiety is aggravating the patient's condition, treatment with SSRIs may be useful. However, it should be noted that the use of these drugs in these diseases is exceptional.<sup>44-50</sup>

## Conclusions

As dermatologists, we can use psychotropic drugs to treat various psychodermatologic disorders, although we should always exercise caution. We must prescribe the appropriate dose, since doses below the therapeutic threshold are of no use whatsoever.

Great care must be taken with drug combinations, taking into account all the potential interactions and adverse effects associated with these drugs.

When prescribing psychotropic drugs, we must carefully explain to the patient both the reason for the prescription and the beneficial effect it may have on their condition. First and foremost, our task is to reassure the patient.

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