Drug-induced gingival hyperplasia is an adverse drug reaction of unknown etiology that could be related to changes in calcium metabolism and other local factors. The drugs most commonly associated with the condition include anticonvulsants, immunosuppressants, and calcium antagonists.\(^1,2\)

In 1939, phenytoin was the first drug to be associated with the disorder and it is still the most common associated anticonvulsant. Ciclosporin\(^3\) stands out in the literature as the leading immunosuppressant related to the condition and nifedipine is the most commonly cited calcium antagonist.\(^4\)

Gingival hyperplasia tends to appear a few months after starting treatment with the drug, and in general

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**Figure** Marked maxillary gingival hyperplasia. Erosions on the lips and gums.
it is reversible. The principle approach is to avoid or
substitute the drugs wherever possible, and to main-
tain strict dental hygiene regimes. Antibiotics can also be used
(metronidazole, clarithromycin, azithromycin), and in
resistant cases a gingivectomy may be performed by means
of scalp, electrosurgery, cryosurgery, or carbon dioxide
laser, although the condition tends to recur within 3 to 12
months.\textsuperscript{1,2}

Everolimus is a new sirolimus derivative immunosuppressant
with a better bioavailability and shorter half-life. It is
a potent proliferation signal inhibitor operating via the
m-TOR receptors. It is used in prophylaxis to prevent
rejection of solid organ transplants in adult recipients with
a low to moderate immunological risk.\textsuperscript{5}

The most common adverse reactions associated with
this group of drugs are hyperlipidemia, thrombocytope-
tenia, delayed healing, delayed recovery from acute tubular
necrosis in kidney transplantation, reduced testosterone
levels, increased proteinuria, pneumonitis, headache, as-
thenia, joint pain, lymphocele and, in combination with
cyclosporine, an increase in hemolytic uremic syndrome,
nephrotoxicity, and systemic hypertension.

Use of the drug has also been associated with adverse
skin reactions: mouth ulcers (60%), gingivitis (20%), chronic
labial fissures (11%), epistaxis (60%), acneiform rashes (46%),
folliculitis of the scalp (26%), supplicative hidradenitis
(12%), chronic edema and sclerodermiform changes (55%),
angioedema (15%), nail disorders (74%), and periungual
infections (16%).\textsuperscript{6}

We consider this case worthy of discussion as we have
found no other reports of gingival hyperplasia secondary
everolimus amongst the many descriptions of such drug
reactions in our review of the literature.

References
2. Centro Andaluz de Información de Medicamentos. Hiperplasia
3. Pastor Llord L, Dauden Tello E, Mestre Bauza F, Iglesias Diez L.
Hiptrofia gingival por ciclosporina. Actas Dermosifiliogr.
1987;78:49-52.
Hiperplasia gingival por nifedipina. Actas Dermosifiliogr.
1990;81:798-800.
5. Carretero M. Everolimus: Inhibición de la señal de proliferacion.
6. Mahé E, Morelon E, Lechaton S, Sang KH, Mansouri R, Ducasse
MF, et al. Cutaneous adverse events in renal transplant recipients
receiving sirolimus-based therapy. Transplantation. 2007;79:
476-82.

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Contact Allergic Dermatitis to Quinine in an Anti-hair Loss Lotion
Dermatitis alérgica de contacto a quinina por una loción capilar anticaída

To the Editor:

The use of anti-hair loss lotions for treating androgenic
alopecia can occasionally cause pruritus and desquamation
of the scalp. The most common causes include irritant
contact dermatitis, allergic contact dermatitis, and even
exacerbation of seborrheic dermatitis. Allergic contact
dermatitis caused by anti-hair loss lotions has been widely
described in the literature and is generally associated with
the use of minoxidil or propylene glycol used as excipients,
the latter being the causative allergen in most cases.\textsuperscript{1}
Allergic contact dermatitis to the quinine contained in
anti-hair loss lotion, as in the present case, is much less
common.

The patient was a 73-year-old woman with no relevant
personal history, referred by her health-area dermatologist
for a highly pruritic and impetiginous papulovesicular
dermatitis of the scalp, ears, and face that had begun
several days earlier (Figure 1). The patient reported the
topical application of Bio-anagenol shampoo, Lacovin (2%
minoxidil), and Kavel anti-hair loss lotion over a per-
iod of 13 years for androgenic alopecia. She denied hav-
ing used other topical, cosmetic, or therapeutic produc-
ts, did not associate her symptoms with any occupational
activity, and had no history of atopy or other skin
diseases. Treatment was prescribed with corticosteroid
solution (clobetasol propionate twice a day), predniso-
one (30 mg/d), antihistamines, and oral antibiotics for a
week, leading to complete resolution of the symptoms.
An open test subsequently performed on the patient’s
forearm with Lacovin (2% minoxidil), and Kavel anti-hair loss lotion over a period
of 13 years for androgenic alopecia. She denied having
used other topical, cosmetic, or therapeutic products,
did not associate her symptoms with any occupational
activity, and had no history of atopy or other skin
diseases. Treatment was prescribed with corticosteroid
solution (clobetasol propionate twice a day), prednisone
(30 mg/d), antihistamines, and oral antibiotics for a
week, leading to complete resolution of the symptoms.
An open test subsequently performed on the patient’s
forearm with Lacovin (2% minoxidil) was negative, while
Kavel anti-hair loss lotion was positive (++) on the third
day. A patch test with Kavel anti-hair loss lotion applied
to the back was positive (++). The other patch tests with
a standard series from the Spanish Contact Dermatitis