

Figure 2 Histologic examination of a biopsy specimen from the edge of the ulcer showed a mixed inflammatory infiltrate with lymphocytes, histiocytes, and several macrophages with intracellular and extracellular amastigotes (red arrows) (hematoxylin-eosin, original magnification $\times 4$).

(57.15%) or MA (55.63%) alone. The use of intralesional MA allows the total dose—and consequently the adverse effects—to be reduced. This treatment option yielded good results in our patient, although it should be noted that even though we used lower doses that would have been required with intramuscular MA, our patient still experienced adverse effects in the form of tachycardia, headache, and chest pain. The effects of treatment with itraconazole must also be taken into account. In conclusion, we highlight the importance of considering the possibility of cutaneous or visceral leishmaniasis in patients treated with anti-TNF drugs in *Leishmania*-endemic areas. We also recommend considering MA combined with cryotherapy as a more effective and less toxic option than intramuscular MA.

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Aprepitant in the Treatment of Refractory Pruritus Secondary to Cutaneous T-Cell Lymphoma[☆]



Tratamiento con aprepitant del prurito refractario secundario a linfoma cutáneo de células T

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Patients with cutaneous T-cell lymphoma frequently develop intense pruritus, which can often be refractory to anticancer and symptomatic treatments and can affect quality of life to a significant degree.¹ Aprepitant, an antiemetic that is a substance P antagonist, has been used successfully to manage refractory pruritus.^{2,3}

We present the case of a 61-year-old woman who was a smoker with a history of chronic obstructive pulmonary disease and who required home oxygen. In August 2011 she was seen for a 5-month history of skin lesions that she described as very itchy. The lesions, which were present on the head, trunk, and limbs, consisted of plaques and nodules with areas of necrosis (Fig. 1). Biopsy revealed acanthosis and partial necrosis of the epidermis, which



Figure 1 Plaques and tumors on the trunk.

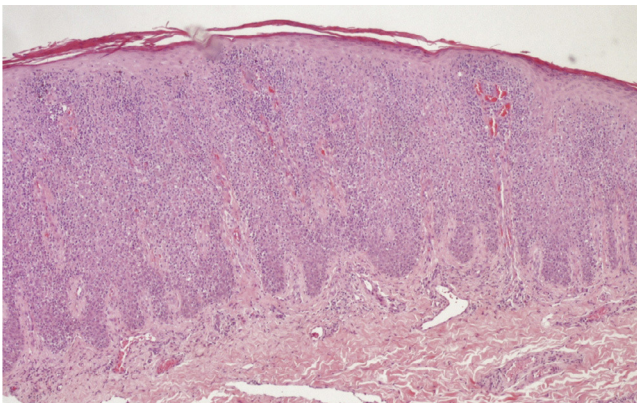


Figure 2 Acanthotic epidermis with an intense pagetoid infiltrate of lymphocytes with an atypical morphology (hematoxylin and eosin, original magnification $\times 20$).

was infiltrated by lymphocytes with an atypical morphology and marked epidermotropism (Fig. 2). Immunohistochemistry was positive for CD3, CD7, CD8, TIA1, and Ki67 (50%) and negative for CD4, CD5, CD56, T-cell receptor β -F1, CD79a, and CD20, and Epstein-Barr virus RNA was not detected. Serology for Human T-Lymphotropic Virus I/II and *Borrelia burgdorferi* was negative. The study of tumor spread was negative. Based on the above data, a diagnosis of aggressive primary cutaneous cytotoxic T-cell lymphoma was made. The patient received treatment with various chemotherapy protocols—cyclophosphamide, adriamycin, vincristine, and prednisone (CHOP); bexarotene; gemcitabine plus oxaliplatin; alemtuzumab; and cyclophosphamide,

unpegylated liposomal adriamycin, vincristine, and prednisone (COMP)—without achieving control of disease progression or of the associated pruritus. She was administered symptomatic treatment for the pruritus with 0.1% triamcinolone acetonide cream once a day plus cetirizine 10 mg in the morning and dexchlorpheniramine 2 mg at night, with no improvement. This treatment was subsequently changed to 0.05% clobetasol cream once a day, plus bilastine 20 mg in the morning and dexchlorpheniramine 4 mg at night. Due to persistence of the pruritus (score of 10/10 on a verbal numerical scale), it was decided to prescribe aprepitant for off-label use. After using aprepitant for 3 consecutive days (125 mg on the first day and 80 mg on the second and third days)—there was a marked symptomatic improvement at each 2-weekly evaluation (score of 3/10 on the verbal numerical scale), and this led to a considerable improvement in the patient's quality of life until her death 13 months after diagnosis of the lymphoma.

Substance P is a potent inducer of pruritus. It activates the neurokinin-1 receptors present on keratinocytes and mast cells and also on the neurons of the sensory dorsal root ganglion. Aprepitant inhibits the effect of substance P by blocking the neurokinin receptors.^{1,3} It acts by blocking signal conduction along peripheral nerve C fibers—inhibiting the release of nerve growth factor from keratinocytes—or by blocking signal transmission in the dorsal horn.⁴ In 2009, Duval et al.⁵ reported 3 patients with pruritus secondary to Sézary syndrome in whom aprepitant was used at a dose of 80 mg/d continuously and led to successful control of the pruritus. Subsequently, Booken et al.⁶ published the cases of 5 patients with pruritus secondary to erythrodermic cutaneous T-cell lymphoma who were treated with aprepitant on a 3-day regimen (125 mg on day 1 and 80 mg on days 2 and 3) every 2 weeks, with improvement of the pruritus in 4 cases. Later, Torres et al.⁷ described 2 patients with pruritus secondary to Sézary syndrome; both responded well to aprepitant at a dose of 80 mg/d. Most recently, Ladizinski et al.⁸ were the first to report the efficacy of aprepitant in a patient with nonerythrodermic cutaneous T-cell lymphoma; they administered the drug at a dose of 80 mg 3 times a week (Table 1). Aprepitant has also been effective in the control of chronic itching in patients with atopic dermatitis or nodular pruritus,² in patients with solid tumors,⁹ and in those with erlotinib-induced pruritus.¹⁰ Aprepitant has a good pharmacological safety profile. It is important to remember that this drug is able to inhibit CYP3A4, and it must not therefore be administered to patients on treatment with pimozide, terfenadine, astemizole, or cisapride. It can also induce elevations of the aminotransferases and

Table 1 Published Cases of the Use of Aprepitant to Treat Pruritus Secondary to Cutaneous Lymphoma.

Reference	No. of Cases	Aprepitant Regimen	VAS (0-10) Pretreatment	VAS (0-10) After Treatment
Duval et al. ⁵	3	80 mg/d	7, 8, 9	2, 3, 2
Booken et al. ⁶	5	125 mg, 80 mg, and 80 mg on 3 consecutive days every 2 weeks	9.8 \pm 0.4	4.3 \pm 3.4
Torres et al. ⁷	2	80 mg/d	8, 9	2, 3
Ladizinski et al. ⁸	1	80 mg/d 3 times a week	10	1

Abbreviation: VAS, visual analogue scale.

must be used with caution in patients with altered liver function. The common side effects of aprepitant include hiccup, fatigue, constipation, headache, and anorexia.

In summary, we have presented the case of a patient in whom aprepitant was used successfully to treat refractory pruritus secondary to cutaneous T-cell lymphoma. This treatment produced a marked improvement in patient's quality of life.

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Wooly Pattern as a Characteristic Ultrasound Finding in Angiolymphoid Hyperplasia With Eosinophilia[☆]



Patrón en ovillo de lana como hallazgo ecográfico característico de hiperplasia angiolinfoide con eosinofilia

Angiolymphoid hyperplasia with eosinophilia (AHE) is a rare, benign vascular proliferation with a chronic clinical course. It typically presents as erythematous or brownish papules and plaques or subcutaneous lesions predominantly affecting the head and neck, especially in the periauricular region.¹ Histology reveals endothelial cells of epithelioid appearance within the vascular lumen, associated with an inflammatory infiltrate and abundant eosinophils. This disorder has a broad differential diagnosis with other subcutaneous lesions. Ultrasound is a noninvasive technique that is very useful for the study of these lesions. We present a case of AHE and describe the ultrasound findings.

The patient was a 37-year-old woman with no past medical history of interest. She was seen in dermatology outpatients for an asymptomatic lesion that had arisen on her chin several months earlier. On examination there was

a brownish nodule of 2 cm diameter, with a rubbery consistency (Fig. 1). There were no palpable lymph nodes. The lesion was excised. Histology showed no changes in the epidermis, but vessels lined by endothelial cells of epithelioid

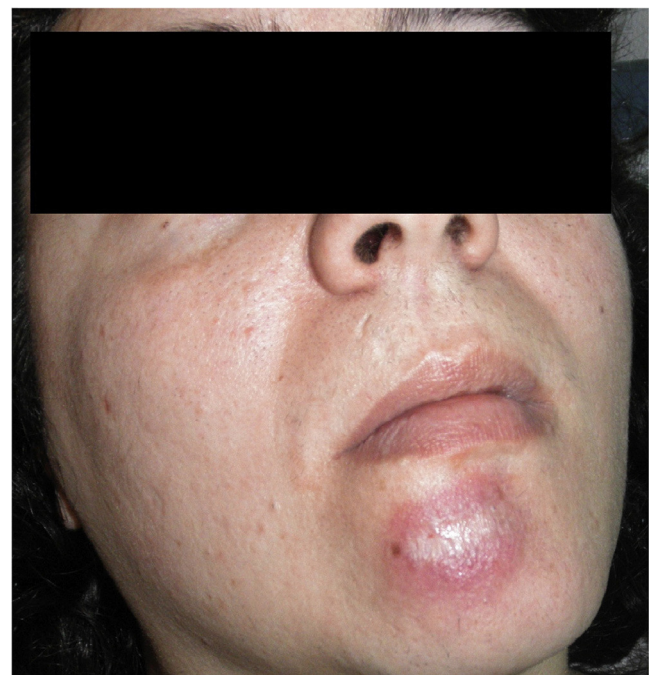


Figure 1 Clinical image. Erythematous-brownish nodule of 2 cm diameter, situated on the chin.

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