

# REPORT OF A CASE OF MULTIPLE NODULAR FACIAL PSEUDOLYMPHOMA INDUCED BY AMITRYPTILENE

**Shamsadini Sadollah**

Associate Professor of Dermatology

**Sharifi-Hedaytollah, MD**

Assistant Professor of Dermatology

## Abstract:

Pseudo-lymphoma of the skin is a rare eruption with clinical and histological features similar to malignant lymphoma. We report a case of skin pseudo-lymphoma apparently caused by amitryptilene therapy, as there was improvement when the drug was discontinued. There was still no recurrence after eight months and we suggest that withdrawal therapy should be considered as the first simple step in the treatment of drug induced pseudo-lymphoma cutis.

## Introduction:

Pseudolymphoma of the skin is a descriptive term for a group of benign conditions characterized by a lymphocytic infiltrate<sup>(1-3)</sup>. The condition, which has no identifiable cause, usually presents as nodules or plaques and has a chronic course<sup>(4)</sup>. Biopsy specimens of enlarged lymph nodes display a spectrum of histopathological changes ranging from benign hyperplasia to apparent malignancy<sup>(6-10)</sup>.

Therapy is usually simple, topical and intra-lesional corticosteroids, x-ray therapy and anti-inflammatory medication. The case that we report was treated by discontinuing various drugs one by one until regression was noticed. We also reviewed the literature in respect of the spectrum of cutaneous reaction to various drugs and conditions<sup>(6)</sup>. [Table 1]

## Case Report:

A 33-year-old white woman presented with 32 violaceous red asymptomatic cutaneous nodules on her face, which had appeared first seven months before. (Fig. 1-2). Because she suffered from migraine headaches she had been taking amitryptilene (50 mg/day orally) and ergotamine (2 mg/day) for two years. Her husband and all seven children were healthy and had no similar lesions.

The nodules were only on her face and were reddish-brown, sparse monomorphic with a diameter of 1-1.5cms. There was no lymphadenopathy or hepatosplenomegaly and no history of



Fig. 1: Fire colored monomorphic papules on the face of a case with drug induced pseudolymphoma



Fig. 2: A close-up magnification of one of the papules on the face of the same case

fever or exanthema. An excision biopsy of a facial nodule showed hyperkeratosis of a thin epidermis and diffuse and follicular lymphocytic infiltration in the dermis extending to the hypodermal fat. Mitotic figures were rare. Foreign body granulomata were seen. A diffuse dermal infiltrate was composed of small round to irregular and also large lymphoid cells of which the atypical cells were suspected by T-cells. Focally the infiltration obliterated adnexal structures. Pautriers micro-abscesses were not seen. Special stains for bacteria, including acid-fast bacilli, were all negative. The amitryptilene was discontinued and over eight months, there was complete improvement with no recurrences.

## Discussion:

The pseudolymphoma in this case could have been caused by either ergotamine or amitryptilene. However we suspected that amitryptilene was the cause and the subsequent improvement and lack of recurrence following amitryptilene withdrawal suggests that we were correct in our assumption.

Cutaneous pseudo-lymphoma has been reported following the use of phenytoin<sup>(11)</sup>, mephytoin, trimethadion, phenobarbitone,

Correspondence:

Tel.: (341) 220015-18

Fax: (341) 278856

**Key words:** Pseudolymphoma, lymphocytoma cutis, drug eruption lesions.

gold injections<sup>(12, 13)</sup>, carbamazepin<sup>(14,16)</sup> and identical phenothiazide compounds<sup>(18,17)</sup>. Arthropod bites are another possible cause and recent reports have suggested an association with tick-borne borreliosis or Lyme disease<sup>(18,19)</sup>. Rare tumor-like lymphoproliferative infiltrations can occur intra-orally, notably in the palate, but these lack the malignant potential of lymphoma<sup>(20)</sup>.

Several cases of cutaneous pseudo-lymphoma have been reported but the diagnosis has rested on the identification of Pautriers micro-abscesses in the epidermis. It can be argued that these represent spongiotic vesicles but in any case their presence is insufficient evidence for the diagnosis of cutaneous T-cell lymphoma since they can be found in other conditions including drug eruptions<sup>(21)</sup>. Severe forms and relapses occurred even after drug withdrawal.

The inducing drugs fall into two groups corresponding to drug-induced pseudo-lymphoma and the hypersensitivity syndrome. Even if the pathological findings

are similar we believe that there are two distinct entities with different clinical and biological features and outcomes. Further studies are needed to investigate this hypothesis and to evaluate the discontinuation of therapy in treating these cases<sup>(20)</sup>. A study of skin biopsies might be particularly helpful, as the lesions of drug-induced pseudolymphoma are morphologically distinctive from malignant lymphoma<sup>(22)</sup>. [Table 1]

**Table 1:**  
**Some differentiating features between benign and malignant lymphoid infiltrates as compared with the present case.**

Pathological Infiltration	Pseudolymphoma	Our Case	Lymphoma
Involvement	Papillary and upper reticular dermis	++	Frequently deep and incompletely excised
Heavily Involvement	At the top papules near the surface	++	Bottom of papules
Adnexals and Blood vessels and Nerves	Not involved	—	All involved
Infiltration	Lymphocytes are high Eosinophils frequent	++	Relatively monomorph

**References:**

1- Zackheim HS. Cutaneous Lymphoma, Leukemia and related disorders. In Schwartz RA, ed *Skin cancer recognition and management*. New York: Springer-Verlag 1988: 162-84.  
 2- Lynch PJ. Benign and Malignant tumors of noncutaneous origin. In Sams WM Jr, Lynch PJ eds *Principles and practice of dermatology*. New York: Churchill Livingstone, 1990:283-304.  
 3- Kerl H, Ackerman AB. Cutaneous pseudolymphoma. In Fitzpatrick TB, Eisen AZ, Wolff K et al eds *Dermatology in General Medicine*. 3rd ed New York: McGraw-Hill 1987:1118-30.

4- Mackie RM. Cutaneous Lymphocytic infiltration and pseudolymphomas Champion R.H., Burton J.L., Ebling F.J.G. *Rook/Wilkinson Text Book of Dermatology Fifth edition Oxford Blackwell scientific publication 1992, chap. 52 pp 2101-3.*  
 5- Suzanne W. Braddock, MD. Doug Harrington, MD and Vose, MD, Omaha Nebraska. Generalized nodular cutaneous pseudolymphoma associated with phenytoin therapy. *J Acad Dermatol.* 1992; 27:337-40.  
 6- Staley J, Fallon-Pellici F, Phenytoin hypersensitivity reaction. *Arch Dermatol* 1978; 114:1350-3.  
 7- Saltzstein SL, Ackerman LV. Lymphadenopathy induced by anticonvulsant drug and mimicking clinically and pathologically malignant lymphomas. *Cancer* 1959; 12:164-82.  
 8- Hyman GA, Sommers SC. The development of Hodgkins disease and lymphoma during anticonvulsant therapy. *Blood* 1966;28:416-27.  
 9- Anthony JJ. Malignant lymphoma associated with hydantoin drugs. *Arch Neurol* 1970; 22:450-4.  
 10- Schwinghammer RL, Howrie DL. Phenytoin-induced lymphadenopathy. *Drug in clin pharm.* 1983; 17:460-2.  
 11- Rosenthal CH, Noguera CA, et al. Pseudolymphoma with mycosis fungoides manifestations hyper responsiveness to diphenylhydantoin and lymphocyte dysregulation. *Cancer* 1982; 49:2305-14.  
 12- Wolf R, Kahane E, Sandbank M. Mycosis fungoides like lesions associated with phenytoin therapy. *Arch Dermatol* 1985; 121:1181-2.  
 13- Kalimo-K, Rasanen-L, Aho-H, Maki-J, Mustikkamki-UP, Rantala-I. Persistent cutaneous pseudolymphoma after intradermal gold injection. *J-Cutan-Pathol.* 1996 Aug; 23(4):328-34.  
 14- De-Vriese-AS, Philippe-J, Van-Renterghem-DM, De-Cuyper-CA, Hindryckx-PH. Carbamazepine hypersensitivity syndrome: report of 4 cases and review of: *Medicine-Baltimore.* 1995 May; 74(3): 144-51.  
 15- Rijaarsdam U, Scheffer E, Meijer CJLM, et al. Mycosis fungoides like lesions associated with phenytoin and carbamazepin therapy. *J Am Acad Dermatol* 1991; 24:216-20.  
 16- Adams JD. Localized cutaneous pseudolymphoma associated with phenytoin therapy: a case report. *Australas J Dermatol* 1981; 22:28-9.  
 17- Callot-V, Roujeau-JC, Bagot-M, Wechsler-J, Chosidow-O, Souteyr and P More: Drug induced pseudolymphoma and hypersensitivity syndrome. Two different clinical entities. *Arch Dermatol* 1996 Nov; 132(11): 1315-21.  
 18- Steer AC Lyme disease. *New Engl J Med* 1989, 321 386-396.  
 19- Weber K, Schierz G, Wilske B, et al. European erythema migrans disease and related disorders. *Yale J Biol Med* 1984; 57:463-71.  
 20- Wright JM, Dunsworth AR, Follicular lymphoid hyperplasia of the hard palate: a benign lymphoproliferative process. *Oral Surg.* 1983; 55:162-8.  
 21- Waldmann TA, Davis MM, Bonjiovanni KF, et al: Rearrangement of genes for antigen receptor on T cells as markers of lineage and clonality in human lymphoid neoplasms. *N Engl. J Med* 1985; 313:776-83.  
 22- Magro-CM, Crowson-AN : Drug-induced immune dysregulation as a cause of atypical cutaneous lymphoid hyperplasia. *Hum-Pathol,* 1996 Feb; 27(2): 125-32.