Multiple scalp nodules
Case

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A 45-year-old man presented with multiple ulcerated and erythematous nodules on his scalp. The first lesion appeared on his vertex as an erythematous plaque five years ago and there was gradual increase in size and number of the lesions ever since. He was otherwise healthy.

Physical examination showed multiple erythematous nodules, some were crusted, on the vertex (Fig.1). No lymphadenopathy was detected and general examination was unremarkable.

The scalp lesion was biopsied and immunohistochemical staining was performed on the specimen.

What is your diagnosis?

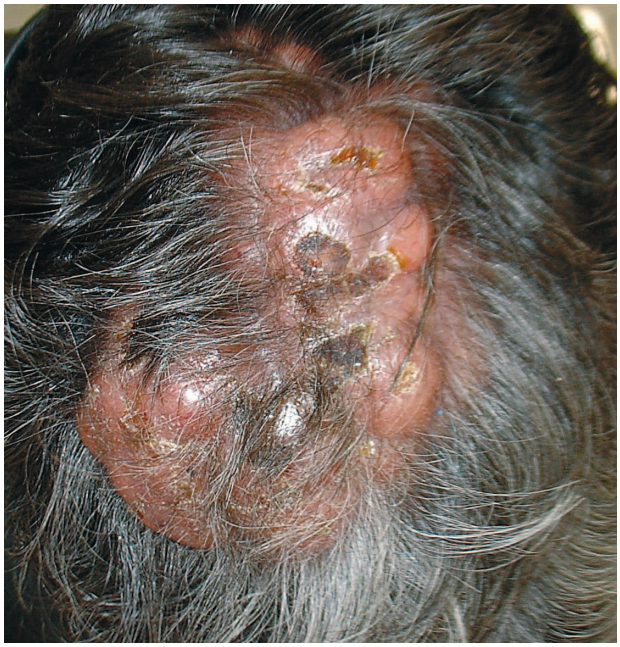

Figure 1. Multiple scalp nodules

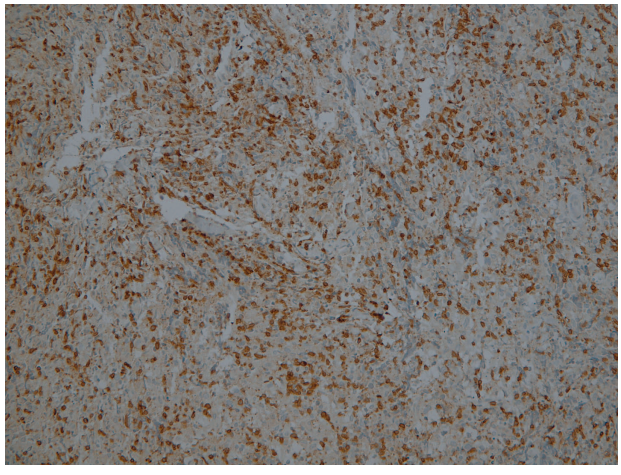

Figure 2. partial epidermal atrophy and the dense infiltration of atypical mononuclear cells with large hyperchromatic nuclei in the underlying dermis.

Microscopic findings

Microscopic evaluation revealed partial epidermal atrophy with the loss of rete ridges and dense infiltrations of atypical mononuclear cells with large hyperchromatic or occasional vesiculated nuclei in the underlying dermis. There were diffuse infiltrations of artefactually crusted nuclei and nuclear dust from the subepidermal portion extended down to the base of the biopsy sample, the reticular dermis. Occasional upward extension of tumoral cells was seen (Fig.2).

On IHC staining, the tumor cells revealed diffuse positivity for CD3 (Fig.3) and CD5 and negativity for CK, CK20 and CD20. CD45RO was inconclusive and K167 activity was significant (Fig.4).

These findings were compatible with the diagnosis of malignant T-cell lymphoma.

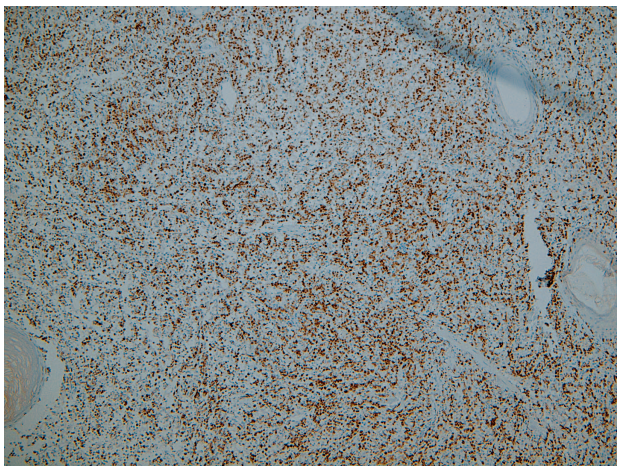

Figure 3. CD3 positivity (IHC)

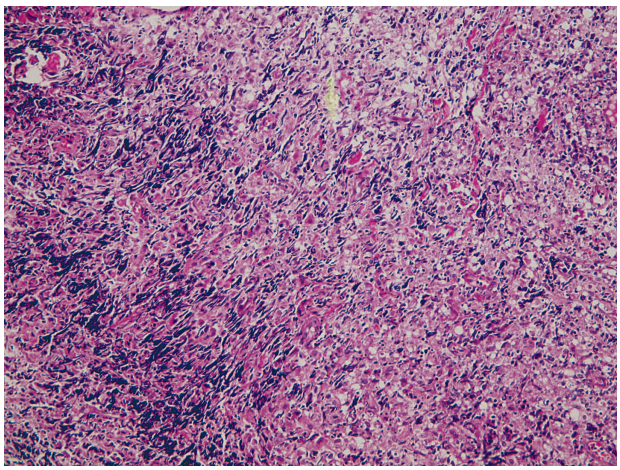

Figure 4. KI67 (proliferative activity)

DISCUSSION

Cutaneous lymphoma, which occurs primarily in the skin and is confined to it with no extracutaneous involvement for at list 6months, is a lymphoproliferative skin disease with infiltration of T-, B-, or undefined lymphocyte lineage. It approximately affects 0.3 per 100000 individual per year. Sixty five percent of the cutaneous lymphomas are T-cell type. Cutaneous T-cell Lymphoma (CTCL), with a dominant skin homing T-cell clone, is a non-Hodgkin's lymphoma that mostly reveals a Th2 cytokine profile [1].

Histo- and cytomorphology can help with the diagnosis of CTCL in 80% of the cases and for the remaining 20%, immunophenotyping and genotyping are used [1].

There are no universal guidelines for the treatment of CTCL although

identification of the prognostic factors and accurate diagnostic assessment provide a basis for therapeutic intervention.

There are some effective well-tolerated palliative therapies for CTCL.

For primary cutaneous lymphomas with a well-defined aggressive course, or those with extracutaneous manifestations, combined or aggressive treatment modalities should be used; studies have showed that there is no difference in long term remission or in survival rate if treatment is started at earlier stages [2].

Studies have revealed that topical and systemic retinoids, recombinant toxins, cytokines (IL-12, interferon) and monoclonal antibodies, used as monotherapy or in combination, will improve the response rate and provide better long-term outcomes with an enhanced quality of life [3].

Two studies on primary CTCL showed that most patients had solitary discrete nodules with a smooth non-ulcerated surface which occurred on the head and neck region in 60% of the cases, as in our patient with the lesion on his scalp. These lesions have no distinct clinical features, and BCC and sebaceous cyst will be the initial differential diagnoses [4].

Our patient had the scalp plaque since 5 years ago and during these years, the lesion increased in size and became nodular. The biopsy and IHC study revealed the diagnosis of CTCL. As mentioned

in the literature, at the time of diagnosis, only 15% to 25% of cutaneous lymphomas have extra-cutaneous manifestations and the prognosis is relatively good with a mean survival of 12 to 14 years from the diagnosis [5,6].

There was no systemic abnormality in our evaluation. We referred our patient to an oncologist but unfortunately he was lost to follow up thereafter.

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