THE REALM AND FRONTIERS OF MYCOSIS FUNGOIDES*

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Both the realm and frontiers of mycosis fungoides remain a controversial subject for many pathologists and dermatologists.

There is no doubt that following the publication by Vidal and Brocq and later by Hallopeau of their cases of mycosis fungoides with tumors present from the onset and the erythrodermic forms of this disease, the scope of mycosis fungoides was unduly enlarged by the inclusion of tumors and erythrodermas of various kinds.

Ever since Sternberg and Paltauf described the malignant granuloma of Hodgkin's disease, there has been a tendency to include the erythrodermic and other forms of mycosis fungoides with the latter.

Even at the present time certain pathologists, notably those of the Anglo-Saxon schools, do not recognize the existence of mycosis fungoides with tumors from the onset, or the erythrodermic type. Among these, Samuel M. Bluefarb, who undoubtedly is uniquely acquainted with malignant lymphomas, does, however, recognize that Alibert's mixed form of mycosis fungoides is a clinical and histological entity; and this view is also held by Walter Lever and Arthur C. Allen.

A smaller group of authors, such as Symmers, Gall and Mallory, and Cawley, Curtis, and Leach, regard mycosis fungoides as a malignant disease of reticulo-endothelial origin which should be classified among malignant lymphomas, but they deny it as an anatomo-pathological entity. Symmers does not even recognize it as a clinical entity.

Most French-speaking authors, ourselves included, accord to mycosis fungoides the position of a morbid entity, both on the clinical and the anatomo-pathological level, and this includes all three forms, the mixed, the form with tumors from the onset and the erythrodermic.

These extreme differences in opinion, in our view, are due to a different understanding of what constitutes the realm of mycosis fungoides. Some regard it in the broadest clinical sense and include with it all cases having some resemblance to it. On anatomo-pathological examination they encounter a great diversity of findings: cases of Hodgkin's disease and lymphogranulomatosis, leukemia, lympho- and reticulosarcoma, reticulosarcomatosis and all the histiomonocytic reticuloses. Together with most French-speaking dermatologists, we tend, on the contrary, to restrict the scope of mycosis fungoides in the strictest sense according to very well defined rules.

The malignant granuloma in mycosis fungoides is at first a malignant neoplasm of only the young reticular cells (adventitial cells) of the papillary dermis. These cells are surrounded by a streaked infiltration of elements which appear to have been produced as a result of a reaction of allergic nature (Fraser) to these abnormal reticular elements.

This combination of the two processes in mycosis fungoides begins in the most superficial part of the dermis and remains confined to it throughout the beginning of the disease (stage I and the first part of stage II); it also affects the epidermis. Only later does the granuloma of mycosis fungoides send out its processes into the corium, thus giving rise to thicker plaques (stage II) and tumors (stage III).

At stage I, the malignancy of the reticular cells is not recognizable: the histological picture is not specific (mycosides).

At stage III, on the other hand, the mycotic cells may make up homogeneous regions which are reminiscent of reticulo-sarcomatous tissue, but upon careful search and more extensive biopsy review, one should find areas which have kept the typical picture of streaked granulomas.

Except for the final stage of the disease, even the superficial lymph nodes escape this neoplastic tendency. The findings are only those of minor lipomelanotic reticulosis which is often secondary to many chronic cutaneous diseases, excoriated by pruritus, scratching and superinfection. The rapid spread of the granuloma to the entire superficial cutaneous dermis gives rise to the erythrodermic clinical type of mycosis fungoides, which is admittedly fairly rare, and which should not be confused with a great many other erythro-

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Received for publication August 17, 1963.

dermas. If, however, it is limited to a small region of the derma, it may give rise to mycosis fungoides with tumors from the onset. This situation, however rare, we recognize, and point out the fact that it is often erroneously confused with many other lymphomatous tumors of very diverse classifications.

The realm of mycosis fungoides is thus dominated by a number of findings and clinical and particularly histological developments. Let us see whether under these conditions the boundaries are clear-cut in comparison with allied morbid entities, such as:

1. *Premycotic Dermatoses:* By this we mean dermatoses which are occasionally premycotic, such as eczema, eczematides, psoriasis, ichthyosis, etc., or frequently premycotic, such as parapsoriasis en plaque and lichenoid parapsoriasis.

In the first group, no one would think of mycosis fungoides except in the presence of a more infiltrated, well outlined and pruritic patch; the biopsy examination would determine whether it was a case of mycosis fungoides.

In the second group, warning symptoms could indicate the imminence of mycosis fungoides, but these should only be accepted in the presence of characteristic biopsy findings. These warning symptoms are the onset of continuous pruritus, one or several infiltrated and circumscribed patches, and above all the appearance of pruritic patches on the face, hands, feet, which generally are free from lesions of conditions such as parapsoriasis.

2. *Malignant Lymphogranulomatosis:* Theoretically the malignant reticulogranuloma in Hodgkin's disease is related to that in mycosis fungoides. Its cutaneous manifestations, as has been explained in our first report, may present themselves in the following forms:

a) A clinical form with primary tumor of the skin. This lesion is rare. The lymphogranuloma of which it is made up compresses the epidermis, reducing it to a thin band, contrary to what is observed in the form of mycosis fungoides with tumors present from the onset; the superficial dermis is not involved; the typical streaked infiltrate is deeper from the beginning; the Sternberg cells are more gigantic than those in mycosis fungoides; we observe the rapid development of the entire succession of internal manifestations of Hodgkin's disease.

b) Specific, papular, nodular, tumoral or erythrodermic lymphogranulomatoses. The infiltrates in these lesions are also deeper than in the corresponding lesions of mycosis fungoides, sparing the epidermis and the papillary derma; in the deep organs we observe the symptomatic picture of Hodgkin's disease.

c) Toxic or allergic non-specific lymphogranulomatoses. The insignificant picture presented by these lesions does not resemble mycosis fungoides.

3. *Reticulosarcomas:*

a) Primary, of the skin. In the clinical diagnosis of these it is difficult, if not impossible, to distinguish them from mycosis fungoides with tumors present from the onset.

As a rule histological diagnosis is simple: flattened epidermis, upper dermal band intact; homogeneous malignant reticular cells mixed only with lymphocytes and plasmocytes.

b) Specific lymphosarcomas. Same diagnostic features.

c) Toxic-allergic lymphosarcomatoses. The histological picture of these is insignificant; closer examination of the hematopoietic system usually reveals the primary tumor.

4. *Histiomonocytic Reticuloses:* The same remarks apply to these.

a) The epidermis is not involved and does not take part in the inflammatory process; there are no Darier-Pautrier cell nests; a healthy band of papillary derma persists; the infiltrates are consequently deeper and not made up of streaked elements.

b) The clinical differential diagnosis may be difficult, but one major symptom is absent, namely the intense pruritus present in mycosis fungoides.

c) Histiomonocytic reticulosis induces very acute illness, which develops more rapidly than mycosis fungoides; and others, on the contrary, with an extremely slow development (reticulomatosis).

Invasion of the internal organs and the blood is observed more frequently and at an earlier stage.

CONCLUSIONS

We cannot agree with D. Symmers, E. Gall and T. Mallory, or E. Cawley and associates, who include under the generic name of mycosis fungoides cases of Hodgkin's disease, reticulosarcoma and histiomonocytic reticulosis and

who take the position that mycosis fungoides does not constitute an anatomo-pathological entity.

Nor are we in agreement with S. Bluefarb who does not include any cases of the erythrodermic type or cases with tumors from the onset.

By simultaneously limiting the clinical and histo-pathological characteristics, it is possible to collect a coherent group under the designation of mycosis fungoides, characterized by the well-known malignant granuloma, including the Alibert-Bazin mixed type, certain among Hallopeau's erythrodermic type and some from among the form with tumors from the onset as described by Vidal and Brocq.

The frontiers of the realm of mycosis fungoides thus doubly defined in the strictest sense are clearly outlined and compared with the cutaneous symptoms of malignant lymphogranulomatosis, reticulosarcomatosis and histiomonocytic reticulosis.

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