BOOK REVIEW

Sobre a Significação Patologica das Lesoes Incaracteristicas (Maculares Simples). By LAURO DE SOUZA LIMA and FERNANDO LECHEREN ALAYON. 5ª Monografia dos Arquivos do Sanatorio "Padre Bento." São Paulo, Brazil: Empresa Gráfica de "Revista dos Tribunais" Ltda, 1941. Paper, pp. 303, with 68 tables in the text and 233 figs. on 56 plates.[1]

This monograph, divided into four parts and 25 chapters and illustrated by a total of 144 clinical photographs and 89 photomicrographs, is a unique and exhaustive study of the macular lesions of leprosy which constitute the "incharacteristic" class of the South American classification (the name changed later to "indeterminate" by the Havana congress).

Although the new classification is entirely satisfactory as regards the lepromatous and tuberculoid forms, the authors say, there nevertheless remain doubts in the minds of many about the incharacteristic one. For this reason they had reviewed the cases of this class at the Sanatorio Padre Bento, about 250 in all, making distinction between those with initial and residual lesions, and also those whose lesions had transformed to other kinds.

The term "incharacteristic" they hold to be appropriate in spite of the criticism that from the clinical point of view the lesions—which correspond to the "simple macular" subtype of the Cairo classification—are well characterized. They are not well characterized with respect to mutation, and consequently they are "evolutively incharacteristic." The alternative term "intermediate" would suggest transition from one polar type to the other, whereas these cases comprise initial lesions which are incharacteristic at the outset, and terminal or residual lesions, not intermediate between the two extremes. The longer and less expressive term "simple inflammatory lesions" would not indicate the essential feature of lack of definite characteristics with respect to evolution.

These lesions are of three main varieties, called achromic, erythematohyperchromic, and erythematous. All three are shown to occur in each of the case groups dealt with. Because of the exceptional demonstration of the variations in histopathology which may be found in macules of the same clinical appearance, the presentations are considered here in some detail.

In Part I these three varieties are dealt with seriatim, and then "clinically incharacteristic elevated lesions." Part 2 treats of mutations from incharacteristic to tuberculoid which occur (*a*) gradually, to complete or incomplete stages, or (*b*) by papulation, or (*c*) abruptly, either by "intense" or "discrete" transformation. Part 3 deals with the reverse mutation, from tuberculoid to incharacteristic. Part 4 covers mutation from incharacteristic to lepromatous, progressive or abrupt. (Nothing is found

[1] The only previous review of this important work known to us is a rather uninformative one by J. Aguiar Pupo (*Rev. brasileira Leprol.* **9** (1941) 427), in which it was said that the book should be translated into English, which has not been done. As regards facts stated, this review has been approved by the senior author.

regarding transformation from lepromatous to incharacteristic, although that eventuality was included in the scheme as set forth by Aguiar Pupo [*Rev. brasileira Leprol.* **7** (1939) 357-378]. Later, however, the senior author diagramed that change in his Tres Corações report [*Ibid.* **13** (1945) 135-142].)

Part 1: The 24 clinical photographs of the three varieties of lesions show mostly the familiar aspects of "simple" macules. However, two of the "flat erythematous" kind, designated as residual from reactional tuberculoid leprids, are obviously of that nature and hence open to objection by those who would not include residual lesions in the same class as simple macules *ab initio* (see Part 3). Of the 10 photomicrographs, three which exemplify the achromic variety show pretuberculoid foci, and one a slight but fairly distinct lepromatous infiltration; all four of the erythemato-hyperchromic variety are tuberculoid, one slight ("pretuberculoid") and the others more distinct; of the erythematous variety, one shows slight round-cell infiltration, one a pretuberculoid focus, and the third fairly marked tuberculoid mostly in the deeper levels of the skin.

As for the group with elevated lesions, in none of the six clinical photographs can elevation be definitely perceived, but where the appearance is annular that may be granted for the marginal zone. Of the two photomicrographs of the achromic variety, one is definitely pretuberculoid (the case bacteriologically positive, 1+, and Mitsuda positive, 3+), while the other is represented as lepromatous (the case B2+, M– to 2+). Of the two representing the erythro-hypochromic variety, one is supposed to be pretuberculoid (the case B–, M–) but the picture appears to be of a leproma with much-vacuolated cells; the other, designated as lepromatous (the case B3+, M–), is apparently of elongate-cell type. Of the two representing the erythematous variety, one is definitely tuberculoid (the case B–, M–), while the other, also diagnosed as lepromatous (the case B3+, M–), is apparently of elongate-cell type. Of the two representing the erythematous variety, one is definitely tuberculoid (the case B–, M–), while the other, also diagnosed as lepromatous (the case B3+, M–), is again without evident vacuolated cells.

A question arises, at least with this reviewer, as to the propriety of including macules with elevation in the same class with the "simple" flat ones—whether on the basis of clinical appearance and the results of the bacteriological examination and the lepromin test they should be assigned to one or another of the polar types. With only marginal elevation a lesion might be expected, *a priori*, to show tuberculoid histology in some degree.

Part 2: Of the clinical photographs representing tuberculoid lesions developed gradually from incharacteristic ones, most of the 30 representing the "complete" change are demonstrative—a few being of marked degree, "major" in the original sense of that term—but some are not; and that is also the case with several of the 12 used to demonstrate the "incomplete" change. The 17 photomicrographs pertaining to these two groups show various degrees of the tuberculoid condition. Two are of "lesions in the last stage of the clinical pretuberculoid phase," which apparently (from Plate 16) is applied to lesions which, at the beginning of transformation, show erythema and infiltration of the borders. These would seemingly have to be distinguished somehow from the lesions with marginal infiltration dealt with in Part 1.

All of the 6 case photographs representing tuberculoid development by papulation are readily recognized as tuberculoid, and the 3 photomicrographs show fairly marked degree of that condition in the subpapillary zone.

The cases representing abrupt tuberculoid transformation are clearly reactional, and most of the 24 photographs are demonstrative. Of the 3 photomicrographs representing the "discrete" variety, one is noteworthy as a demonstration of edema and vacuolation of the cellular elements. The 15 which represent the "intense" abrupt change represent only 6 cases, showing different appearances at different levels of the sections. One of them is spoken of as "pseudolepromatous." Several represent "fibrinoid degeneration," but that term is applied to changes in the cellular lesion foci and not to anything in the connective tissue.

Part 3: This part is also of special interest because of the question whether such residuae of former tuberculoid lesions should be regarded as having undergone "transformation" to again become "incharacteristic." Lesions which previously were *circinate* tuberculoid, it is said, usually remain for a long time for recession as erythemato-hypochromic macules and hence are called residual, and it is probable that the process continues until they become achromic. Of the three lesions demonstrated, one is called "hypochromic" and the other two erythemato-hypochromic. The photomicrographs show either simple unspecific chronic inflammatory or remnants of the previous tuberculoid structure.

The residual lesions of what previously were *reactional* tuberculoid, it is said, are more often flat erythematous than of the other varieties. Histologically the usual finding is unspecific inflammatory infiltration, but there may persist tuberculoid foci which recall the initial phases of the organization of nodular tuberculoid structures, and sometimes—although the clinical recession is complete—the previous tuberculoid picture persists without appreciable change.

In the demonstration material, there are before-and-after clinical photographs pertaining to 9 cases. Most of the late ones show a residual condition, but some seem more suitably classed as regressive rather than residual. There are 29 photomicrographs pertaining to 14 cases. Of the 6 cases which had previously had ordinary circinate lesions, all but one of the current pictures show only chronic inflammatory infiltration (2 achromic lesions and 3 erythemato-hypochromic); the exceptional one (achromic) shows very slight tuberculoid changes. Of the 8 cases which had been reactional, the situation revealed by the photomicrographs is quite different, apart from the fact that some illustrating the active phase show considerably less marked changes than would be expected. Only 2 of the supposedly residual stage (1 achromic lesion and 1 flat erythematous) show simple chronic inflammatory infiltration. The others show different degrees of the tuberculoid structure without apparent relation to what the lesions had looked like. One is said to show "residuae of the previous tuberculoid structure," and others to resemble "the phase of organization of the tuberculoid nodular structure." Two pictures (1 erythemato-hypochromic lesion, 1 erythematous) show rather marked tuberculoid changes persisting, one of them described as unchanged from the previous condition despite the clinical recession.

Part 4: The gradual change from incharacteristic to lepromatous is illustrated by 12 macules, none of which seems different from ordinary

pale ones. On the other hand, several of the 12 which illustrate the abrupt change (referred to as urticariform) show small dark areas, described as infiltrations, within or bordering on larger pale areas. The 6 photomicrographs representing these conditions can be said not to resemble tuberculoid changes, although only two of them seem frankly lepromatous.

Throughout the book due attention is given to the lepromin reactivity and the bacteriological findings in the various forms and phases dealt with. (Developments which occurred later in 216 of these cases in the next five years with respect to clinical and immunological features have been reported by de Souza Lima and de Souza Campos in THE JOURNAL **16** (1948) 9-22.)

Turning now to Aguiar Pupo's review of this monograph, he regarded it as having proved definitely the individuality of this newly introduced clinical form of leprosy, which he said comprises approximately one-half of all cases. He pointed out that the clinical phases of leprosy—and he might have added the histological features—are dependent upon the immunobiological conditions and changes in the evolutive tendencies of the disease. The incharacteristic form, he stated, is called that because of the nonspecific inflammatory structure of the lesions, which is of course in accord with the views of those who would change the classification of cases with simple macules from incharacteristic to either lepromatous or tuberculoid if indicated by the histopathology (e.g. Rabello, Jr. [*Rev. brasileira Leprol.* **11** (1943) 115-132]). The authors of this monograph evidently did not subscribe to that view, at least when it was written.

—H. W. W.