

## MACULO-ANAESTHETIC LEPROSY— ITS DIAGNOSIS AND CLASSIFICATION

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### Introduction

Flat, hypopigmented; anaesthetic or hypo-aesthetic lesions of leprosy form a distinct clinical entity. They stand apart from the flat lesions of the lepromatous type, and from the residual flat lesions resulting from the subsidence of the thick lesions of the various types of leprosy. Their existence as a distinct form of the disease has long been recognised although different names have been given to them from time to time.

Because of the relative frequency of such lesions in India, they have been studied to a considerable extent and have been recognised as one of the important types of the disease in this country, under the designation "maculo-anaesthetic". In using the label "Maculo-anaesthetic" for such cases, the term "macule" has been used in its true dermatological sense indicating the presence of a circumscribed area of skin showing pigmentary changes but no elevation above the surface of skin.\*\*

A study of the flat hypopigmented patches in leprosy was reported by DHARMENDRA *et al.* (1953), and the features of the maculo-anaesthetic patches were described by DHARMENDRA and CHATTERJEE (1953). However, in view of the apparant lack of understanding on such lesions, the matter is again considered here in detail. It is proposed first to describe the features of these maculo-anaesthetic lesions, to consider the points of differentiation from other macular lesions of leprosy, and then to discuss their nomenclature and place in a system of classification of leprosy.

### Features of the Maculo-Anaesthetic Lesions

(1) *Morphological characteristics of the skin lesions.* The skin lesions consist of flat, hypopigmented, anaesthetic or hypo-aesthetic areas of skin, varying in size, number and location. Their morphological characters may be described as under:

**Size:** There is great variation in the size of the patches.

**Number:** In number of the patches also there is great variation.

There may be a single patch, or there may be several. They

\*\* In leprosy for a long time the term "macule" has been used in a loose manner to indicate all kinds of skin patches including the thick raised patches. The present authors believe that this practice of using the term "macule" in a loose sense is to be discouraged, and that it should be used in a strict dermatological sense.

are, however, not very numerous, not of wide distribution, and not symmetrical.

**Location:** The patches may be found anywhere, but more commonly on face, lateral or dorsal aspects of extremities, buttocks and scapular region.

**Elevation from the surface:** The patches are flush with the surface of the skin, without any elevation in any of the lesions or in any part (central, peripheral, or marginal) of an individual lesion.

**Colour:** The patches are hypopigmented and lighter in colour than the surrounding skin. The loss of pigmentation is only partial, and is not so marked as in the case of leucoderma; the patches are therefore pale as compared to the surrounding skin, and not absolutely white. In some cases hypopigmentation may be masked by erythema or hyperpigmentation and scars caused by application of caustic preparations as local treatment.

**Margin:** The patches have a well-defined outline; but in the subsiding and subsided patches the margin may sometimes be ill-defined.

**Surface:** The surface is uniform without any irregularity or pebbling. It is dry due to impairment of sweat and sebaceous secretions. Usually there is loss of hair, and those present are stunted and friable.

(2) *Sensory changes.* Loss or diminution in cutaneous sensibility is a prominent feature in this type of lesion except in lesions on the face. Loss or impairment of sensation is most marked in patches on extremities, less marked in patches on the trunk, and least marked in patches on the face. Sensations of light touch, pain, and temperature are affected, the latter two being affected earlier than that of light touch. The resulting anaesthesia and analgesia is more marked at the centre of a patch than at the periphery.

(3) *Thickening of nerves.* Cutaneous nerves supplying the area in which the patches are situated may be thickened, but this is seen less frequently than in case of the tuberculoid patches. Peripheral nerve trunks are sometimes involved, giving rise to polyneuritic changes resulting in the usual sensory, motor, and trophic changes in the peripheral distribution of the affected nerves. Occasionally there may be found a cold abscess in the course of the thickened nerve.

(4) *Results of bacteriological examination.* Results of bacteriological examination by the routine "slit and scrape" method of the patch are usually negative for leprosy bacilli. In cases with active

disease, a small number of bacilli may sometimes be found specially by the concentration method of examination.

(5) *Histological characteristics.* The histological characters in this type of lesion present the picture of a banal or non-specific infiltration mostly with small round cells which is found around the blood vessels, nerves, hair follicles and sweat and sebaceous glands. In this histological picture there is nothing characteristic of leprosy, except some occasional endoneural infiltration.

The infiltrating granuloma consists of a collection of the small round cells, arranged mostly in perivascular and perineural foci, as also around other skin appendages. A small number of epithelioid cells may also be present, but usually there is no localisation to form a follicle, and no giant cells of Langhan's type. Occasionally nerves may show slight endoneural infiltration and a few leprosy bacilli may be found inside the nerves specially on examining serial sections. A few leprosy bacilli may also be found in other parts of the section, outside the nerves.

(6) *Lepromin reaction.* The lepromin reaction is usually positive though only moderately so in most cases.

(7) *Evolution.* This form of the disease is essentially benign, slowly progressive and the lesions are relatively stable. In a vast majority of cases, the patches undergo subsidence after remaining stationary for varying periods, or after increase in size and/or number without becoming thick; after subsidence they usually leave behind some residual loss of sensation and/or slight pigmentary change. In a small number of cases, prior to subsidence there may be increase in activity with thickening to varying degrees, whereby the patches take on the characters of the tuberculoid type. In a few cases the disease progresses into the more serious lepromatous type with erythematous, ill-defined, shiny, bacillated lesions.

### **Differentiation from other Macular Lesions of Leprosy**

Above have been described the distinctive characters of the lesions designated as maculo-anaesthetic. The lesion is essentially a macule (in the true dermatological sense) consisting of a well-defined hypopigmented area showing no elevation. Flat lesions are seen in other forms of leprosy also, and they have to be differentiated from the maculo-anaesthetic lesions described above. These other flat lesions of leprosy are: (i) Macular lesions of the lepromatous type, (ii) Macular lesions of the "Indeterminate Group", and (iii) Residual lesions resulting from the subsidence of thick patches of the tuberculoid, lepromatous, and borderline types. The distinguishing features of the various types of the flat lesions seen in leprosy are given in the accompanying table. Some clarification appears

necessary regarding the macular lesions of the "Indeterminate" group since this term appears to have been used with different meanings.\* Here we have used this term in the distinctive sense as applied by Wade and ourselves to denote macules which differ from the maculo-anaesthetic lesions in several important respects as shown in the accompanying table. Compared to the maculo-anaesthetic lesions, the macules in the Indeterminate group are usually (a) more numerous and of wider distribution, (b) smaller in size, and (c) ill-defined with hazy outline. Sensory changes may be slight or absent; not infrequently, of the several patches, only a few may show loss of sensation. Thickening of cutaneous nerves is not common, and involvement of nerve trunks with consequent polyneuritic changes are not seen. On bacteriological examination the routine "slit and scrape" smears from some of the patches, usually show a small to moderate number of leprosy bacilli, may be in some of the patches only, but sometimes all the smears may be negative. With more elaborate methods of examination, bacilli will be found even in the cases with negative smears, specially some bacilli inside the nerves, as also in other places in the skin sections. Finally, from the point of view of evolution of the disease, these lesions are very unstable, and a large proportion of them may pass on to the lepromatous type.

### Classification of the Maculo-Anaesthetic Lesions

The existence of the form of leprosy described in this paper as maculo-anaesthetic is recognised on all hands, though there may be regional differences in the frequency and therefore in the relative importance of this type of lesion. There are however some differences regarding the nomenclature applied to this form, and its exact place in a system of classification of leprosy. It is proposed to discuss the matter here.

*The existing differences.* The differences in this respect are exemplified by the differences regarding this form in the classification adopted at the Madrid Congress (1953), and the Indian Classification. According to the Madrid Classification these lesions are included in the Tuberculoid polar type, and are designated as macular tuberculoid. On the other hand the Indian Classification, because of their distinctive clinical entity, places them in a separate

\* It was first used at the Havana Congress to replace the term "Uncharacteristic" which had been used in the South American Classification. The "Uncharacteristic" lesions of the South American Classification were defined as macules which may be erythematous or hypochromic or combine these appearances and sometimes they may present distinct elevation of skin. At the Havana Congress these "Uncharacteristic" patches were called "Indeterminate" and defined as "flat macules, either hypochromic, erythematous-hypochromic, or erythematous". At the subsequent Congresses (Madrid and Tokyo) the same definitions were retained. The "Uncharacteristic" or "Indeterminate" lesions were supposed to include the "Maculo-anaesthetic" lesions described in the present paper, and the fact was definitely stated in the first W.H.O. Expert Committee on Leprosy (1952). Wade (1953) and Dharmendra and Chatterjee (*loc. cit.*) brought out the differentiation in the maculo-anaesthetic and the other flat lesions included in the "Indeterminate" group, and suggested two different groups—Maculo-anaesthetic and Indeterminate.

category, and designates them by the term "Maculo-anaesthetic". This question was inconclusively considered by the Classification Committee of the International Congress, Tokyo (1958), and the Committee decided to leave a decision with reference to this matter to individual leprologists.\*

Before discussing this matter any further, we would like to stress that this difference in the nomenclature of the lesions concerned is a minor one, and that the difference should not be magnified as is often done.

In order to make it absolutely clear what the Indian Leprologists refer to when they speak about the maculo-anaesthetic lesions, the various features of these patches have been described in detail in the present article. From the description given it will be clear that though sometimes this form of the disease has been considered as conforming to the "uncharacteristic" or "indeterminate" form of the South American and Havana-Madrid classifications respectively, it really conforms to the macular sub-type of the tuberculoid type as defined in these classifications, for which the term "macular-tuberculoid" was coined at the Madrid Congress. This narrows down the issue at discussion. Essentially two points come up for consideration: firstly, whether the term "maculo-anaesthetic" or the term "macular-tuberculoid" is more appropriate; and secondly, how best the relationship of this entity to the tuberculoid type can be indicated.

*Criteria for primary classification.* To facilitate discussion on these two points we would like to start with enunciating the criteria of primary classification, which have been universally accepted. At its first session the W.H.O. Expert Committee on Leprosy clearly stated its unanimously agreed decision "that the basic criteria of primary classification should be clinical comprising the morphology of skin lesions and neurological manifestations. Indispensable in connection with the clinical criteria is the bacteriological examination of smears of the skin lesions and the nasal mucosa". These views have been endorsed by almost everybody, and highlighted at the two International Congresses on Leprosy (Madrid and Tokyo) that have been held since then. At its second meeting the W.H.O. Expert Committee (1960) has once again expressed emphatically "that in classification priority should be given, as in the past, to the clinical criteria (including the bacteriological findings when that examination can be made)".

\* The only other difference between the two systems of classification is in connection with the pure polyneuritic lesions without any cutaneous lesions. Because of their importance as a clinical entity the Indian Classification places them in a separate group (Polyneuritic); on the other hand in the Madrid Classification there is no such separate group, but such cases are split up into tuberculoid, indeterminate and possibly lepromatous types. In this matter also the classification Committee at the Tokyo Congress had no specific recommendation to make, and the decision on the matter was left to individual leprologists. In the present discussions we will confine ourselves to the maculo-anaesthetic lesions and will not deal with those pure "polyneuritic" lesions.

*Application of these criteria.* Let us try to examine the question of nomenclature and classification of these flat anaesthetic lesions with this background of generally accepted criteria for primary classification of leprosy.

Regarding the first point, i.e., the nomenclature, it should be quite apparent that from the clinical point of view, the term maculo-anaesthetic very aptly describes the lesion; it indicates the morphology of the lesion and the main characteristic feature of it—a macule in the true dermatological sense, and the presence of anaesthesia. On the other hand the term macular-tuberculoid does not describe the clinical character of the lesion. Moreover, it is an anomaly from the clinical point of view as it is a strange and confusing mixture of two terms having different clinical significance, one indicating a flat lesion, and the other an elevated lesion.\* This term was coined at the Madrid Congress evidently to justify the continued inclusion of the type of lesion concerned in the Tuberculoid type. However, one of the members (WADE) of the Classification Committee at that Congress had appended a note of dissent to the report of this Committee expressing the inadvisability of including the “simple” flat macules with the thick, red and elevated “tuberculoid” lesions, and stressing the confusion in terminology likely to be caused by the term “macular-tuberculoid”. It may be stated that these views of Wade are in complete accord with those of the Indian Leprologists.

Regarding the second point, i.e., the relationship of these “simple” flat lesions to the “tuberculoid” lesions, it is agreed by all that from the immunological and prognostic points of view they are closely allied, both being of benign nature. It is also unanimously agreed that this relationship should be appropriately indicated in the classification of the disease. One obvious way of achieving this object is to include both types of lesions in one broad group, and that is what has been actually done in both the Madrid and the Indian Classifications, though different terms have been used for the broad group in the two systems. In the Madrid Classification the flat lesions (designated as macular tuberculoid) and the thick elevated lesions (designated as minor and major-tuberculoid) are classified together under the “Tuberculoid” type. In the Indian Classification the flat lesions (designated as maculo-anaesthetic) and the thick elevated lesions (designated as minor and major-tuberculoid) are included in a broad group “Non-lepromatous”, in contrast to the “Lepromatous” which includes the malign forms of the disease. The present authors consider that the term “tuberculoid” which may be suitable for the thick and elevated lesions, is not suitable for the group containing both the thick elevated and the “simple” flat lesions, for reasons

\* Even from the histological point of view the term is not apt, as in most of these flat lesions the histological picture is that of chronic banal infiltration, and not of the tuberculoid nature.

already stated earlier in this paper. On the other hand the term "Non-lepromatous" is considered very suitable for the benign forms of the disease as against "lepromatous" for the malignant forms. They are however aware of the objections raised against the use of the term non-lepromatous for this purpose. To meet these objections though may be given to finding out some more suitable term to be used in place of or as a synonym of the term "Non-lepromatous".

*Criticism of the Indian Classification.* After stating our position regarding the nomenclature and classification of the "simple" flat lesions of the benign kind, we would like to refer to the criticisms made of this point of view by those who do not agree with the Indian Classification. This brings us to the recent article of CHAUSSINAND (1961).

It appears that CHAUSSINAND's objections to the Indian Classification are mainly three: (i) the nomenclature and position of the "simple" flat benign lesions which are the subject of discussion of the present paper, (ii) the inclusion of Borderline and Indeterminate forms in a broad group called "Intermediate", and (iii) creation of a separate form "Polyneuritic" for the clinical entity of pure polyneuritic cases without any skin lesions. He also indicates his preference for the benign-malignant nomenclature to the non-lepromatous—lepromatous conception, and also voices his opposition to the use of the terms "open" and "closed" for administrative classification to indicate the "infectious" and "non-infectious" cases respectively. Since the present paper is concerned only with the "simple" flat lesions, we will deal with his objections with reference to only these lesions. In passing we may however say a few words in connection with the other two main objections. Regarding the inclusion of "Borderline" and "Indeterminate" in a broad group designated as "Intermediate" (between the lepromatous and non-lepromatous), we have made it perfectly clear in our publications that this arrangement is suggested only for the convenience of certain types of workers, and that this is not an essential feature of the Indian Classification. Regarding the use of a clinical term (Polyneuritic) to designate a clinical entity, CHAUSSINAND says "it is inconceivable this group should be given a place in the primary classification, since the classification has the precise object of defining the principal forms of the disease with a view to orderly scientific classification of patients". To this our only reply is that in view of the unanimous agreement of the leprologists "that the basic criteria of primary classification should be clinical", it is inconceivable to split up a definite clinical entity into different groups or types on the basis of actual or likely histological and immunological findings. If it is done, it will be a mockery of the idea of the primary classification being based on clinical criteria.

We will now deal with CHAUSSINAND's criticism against the use of the term "maculo-anaesthetic". According to CHAUSSINAND "It would be unfortunate to use, as the Indian Leprologists wish to do, histological definitions for the tuberculoid and lepromatous forms and the clinical definition of maculo-anaesthetic leprosy for the indeterminate form". We are amused to read that the Indian leprologists wish to use histological definitions for the tuberculoid and the lepromatous forms, and clinical definitions of maculo-anaesthetic leprosy for the indeterminate form. We do not know what is the source of his information, and whether he is depending on hearsay, since in the list of references attached to his paper under discussion there is included not a single reference to the papers by the Indian workers. For his information, and for the information of others of his way of thinking, we may say here that the Indian leprologists would like to use *clinical definition* for *all* the forms of leprosy. They are aware that the terms "tuberculoid" and "lepromatous" are based on, and have their origin in, the histological findings made in the active cases of the respective forms. But it does not necessarily mean that this fact imposes a ban on the use of any term other than histological to designate any of the forms of leprosy, and that the terminology of all forms of leprosy must necessarily be histological. We have reasons to believe that in this stand we have the support of many workers who advocate the use of the Madrid Classification in entirety, and who say that though the terms used therein are histological they are used in a clinical sense. It is on this basis that these workers justify the use of the term "tuberculoid" for the lesions which do not have a tuberculoid histology, and that is how the term macular-tuberculoid has been coined. CHAUSSINAND's suggestion to use the term "atypical tuberculoid" for such lesions would itself indicate such a position and the desire to somehow retain the term tuberculoid for the entire group including the form where there is even no tuberculoid histology.

*Use of the term tuberculoid.* The term "tuberculoid" and "lepromatous" have now been well established in leprosy by long usage, since 1931 in the case of "lepromatous", and since 1945 in the case of "tuberculoid". The Indian Classification has adopted these terms for the forms of leprosy where the respective histological pictures are generally found at least in the active lesions; this means the adoption of "lepromatous" in its entirety, and "tuberculoid" with the exclusion of the "simple" flat patches. It would be better to explain our position regarding the use of the term "tuberculoid". In infective granulomatous diseases other than leprosy, for example, in syphilis and dermal leishmaniasis, there exist in the skin both flat lesions and thick elevated lesions, the latter with tuberculoid histology; however nobody uses the term "tuberculoid" with reference to these thick



elevated lesions of these diseases with tuberculoid histology. Why should then anybody insist on the use of the term "tuberculoid" with reference to such lesion in leprosy. All the same, because of the term having been in popular use for some time now, we are not against the use of the term as applied to thick and raised benign lesions of leprosy which generally have a tuberculoid histology. However, we cannot understand and support the extension of this term to the "simple" flat benign lesions, which are tuberculoid neither clinically (not elevated) nor histologically. In order to somehow include such lesions in the "tuberculoid" category, confusing nomenclature such as macular-tuberculoid has been coined, or it is suggested to resort to such terms as "atypical tuberculoid" for this purpose.\* To use CHAUSSINAND's own expression we will say "It would be unfortunate to use, as CHAUSSINAND wishes to do, the term atypical tuberculoid for the 'simple' flat lesions which are not tuberculoid either from the clinical or from the histological point of view".

### Conclusions

We fully share CHAUSSINAND's regret that "leprologists are not yet able or willing to agree on one classification that might at least be adopted by all". We also fully share his views expressed in the concluding remarks of his paper that "An acceptable classification of leprosy could be rapidly decided on if leprologists would agree to remove from consideration certain regional or personal preferences, to which it is hard to attach any real importance. And this result could be achieved easily since no doctrinal differences exist in clinical, immunological or histological aspects". We sincerely wish that any regional and specially any personal preferences do not stand in the way of arriving at a generally acceptable classification of leprosy. We feel that this would be possible only if the general principles unanimously accepted and often repeated regarding the criteria of primary classification are faithfully followed. As we have already stated it has been repeatedly agreed and stressed that the criteria for primary classification should be clinical including the results of bacteriological examination of lesions. However when the question of practical application of these principles arises, actually the histological considerations loom large in the minds of many workers. In our opinion it is this dual concept—clinical criteria in principle and histological criteria in practice—that is mostly responsible for the differences that are seen amongst the various groups of workers on this important matter of classification of leprosy. It may be said that the Indian Classification conforms strictly to the principle that "the basic criteria for primary classification should be clinical".

\* The use of the term atypical tuberculoid may be in order in case of the thick raised "tuberculoid" lesions with some atypical feature in the tuberculoid histology.

We would like once again to stress that the differences in the points of view of the Indian and Madrid Classifications are only slight, and that these differences should not be unnecessarily magnified. What is really necessary is to try to understand each other's point of view. This should, however, be mutual and not expected to be one-sided only. We will conclude with the hope that some method may be found to reconcile the minor differences. However, till such solution is found and till the use of two different terms are continued, at least two things should be done to avoid or minimise confusion.\* Firstly, it should be clearly understood that the term macular-tuberculoid (of the Madrid Classification) and maculo-anaesthetic (of the Indian Classification) refer to one and the same type of lesion. Secondly, the the purposes of special investigations and for collecting data for subsequent analysis, macular-tuberculoid or maculo-anaesthetic, as the case may be, should be listed separately from the other components of the Tuberculoid type (in the case of the Madrid Classification) or the Non-lepromatous group (in the case of the Indian Classification) respectively. This is essential because of the differences in the so-called macular-tuberculoid and the other components of the Tuberculoid type regarding such matters as the extent of nerve involvement and consequent deformities, the evolution of the lesion and prognosis of the disease, and the response to treatment. We feel that with due attention to this little matter of detail, data could be collected from different countries which could be comparable even without making any change in the nomenclature and the system of classification that is being followed in the different countries at present.

### Summary

1. The flat hypopigmented anaesthetic patches of leprosy constitute a distinct clinical entity in leprosy. In the Indian Classification such lesions are designated as "Maculo-anaesthetic".

2. A detailed description is given of these lesions which are macular in the true dermatological sense, being flat hypopigmented areas of skin, without any elevation but with clearly defined margins, with definite sensory changes, a rough dry surface, bacteriologically usually negative, histologically showing usually only simple banal infiltration, and having a benign course.

3. Differentiation of these maculo-anaesthetic lesions is considered from other macular lesions in leprosy, such as the macular lesions of lepromatous and indeterminate forms and residual flat lesions remaining after the subsidence of the thick raised patches of the tuberculoid, lepromatous and borderline types.

\* The present paper refers only to the "simple" flat benign lesions of leprosy and comments on the subject have therefore been limited mainly to cover this type of lesion.

Particulars of the flat patches of various kinds seen in leprosy

	<i>Maculo anaesthetic macule</i>	<i>Indeterminate macule</i>	<i>Lepromatous macule</i>	<i>Subsided tuberculoid patches</i>	<i>Subsided infiltrated lepromatous and borderline patches</i>
1. History of elevation of the lesion.	All along flat.	All along flat.	All along flat.	Originally red and raised from the surface of skin.	Originally red and raised from the surface of skin.
2. Morphology of the patch.	Hypopigmented; in treated cases the centre may be hyperpigmented. Dry surface.	Hypopigmented or erythematous. Surface not dry.	Hypopigmented or erythematous. Surface smooth and shiny.	Hypopigmented, the centre may be normal looking or hyperpigmented. Surface dry and shows wrinkling due to subsidence.	Hypopigmented, the centre may be hyperpigmented. Surface smooth and shows wrinkling due to subsidence.
3. Anaesthesia to light touch.	Anaesthesia is a prominent feature.	Anaesthesia is not a constant feature. If present, it is comparatively slight and may be found in only some of the patches.	Not anaesthetic.	Anaesthetic.	Lesions of extremities may sometimes be anaesthetic. Others are non-anaesthetic.
4. Thickening of the associated nerves.	Usually present.	Usually absent. If present, there is only slight thickening.	Absent.	Usually present.	Usually absent.
5. Bacteriological examination by the routine "slit and scrape" method.	Usually negative. A few bacilli may be found in a small number of cases.	Usually positive slightly. Scanty to moderate number of bacilli are usually present at least in some of the lesions. Sometimes smears are negative.	Moderately or strongly positive.	Negative.	Usually positive for a considerable time after subsidence.
6. Lepromin reaction.	Usually positive though moderately.	Usually negative or weakly positive.	Negative.	Moderately positive.	Negative.
7. Histological picture.	Non-specific round cell and epithelioid cell infiltration around blood vessels, nerves and other skin appendages without tuberculoid foci. Some endoneural infiltration usually present.	As in the maculo-anaesthetic macule. Usually no endoneural infiltration, but bacilli may be present, inside the cutaneous nerves.	Loose focal granuloma usually with presence of foam cells; in early cases well developed foam cells may be absent. No endoneural infiltration.	Mainly non-specific cell infiltration. Tuberculoid foci may be found in some places, nerves infiltrated, some may be badly damaged beyond recognition.	Mainly non-specific infiltration but foam cells persist for long after subsidence. No endoneural infiltration, may be marked perineural infiltration.
8. Evolution.	Benign and relatively stable. A vast majority remain true to type, and in due course undergo subsidence but there may remain, some residual loss of sensation and/or slight pigmentary change. A small number may become thickened and pass on to the tuberculoid type; while a few may pass on to the lepromatous type.	Very unstable, and quite a large proportion of them pass on to the lepromatous type in course of time.	In time other lesions of the lepromatous type such as diffuse infiltration, thickened patches, and sometimes nodules appear, and the case becomes a typical lepromatous one.	Usually remain subsided. In case of relapse or activity they again become tuberculoid.	May relapse, and then usually the activity is of the lepromatous type.

4. The maculo-anaesthetic form is a benign form allied to the Tuberculoid type from the prognostic point of view. However, it is not tuberculoid, either from the histological or the wider clinical point of view—neither having a definite tuberculoid histology, nor being thick and elevated.

5. The maculo-anaesthetic lesions of the Indian Classification are designated as macular-tuberculoid in the Madrid Classification. Besides this slight difference in the nomenclature of this form of leprosy in the two systems of classification, there is some difference in its grouping also. In the Indian Classification they are included as a separate type, their close relationship to the tuberculoid type being indicated by including both of them in the broad group of benign (non-lepromatous) leprosy. In the Madrid Classification these flat lesions are included as a variety of the Tuberculoid type (the other varieties being minor and major tuberculoid).

6. The above differences in the terminology and grouping of these flat hypopigmented benign lesions in the two systems of classification are considered to be only minor. A plea is made that these differences should not be unnecessarily magnified, and that efforts should be made to understand the two different points of view.

7. It is hoped that with mutual understanding it should be possible to evolve a unanimously agreed classification since there are no basic differences involved.

8. Till such agreement is reached, even with the existing differences it is possible to collect data for comparative studies from different countries without any difficulty. The Tuberculoid type of the Madrid Classification may be considered identical with the "Non-lepromatous" group of the Indian Classification; and the macular-tuberculoid component of the Tuberculoid type (Madrid) identical with the maculo-anaesthetic component of the Non-lepromatous group (Indian).

It would be better and more informative if for the purpose of collecting certain data in both the systems of classification the flat patches are separated out from the thick and raised patches in the Type or Group as the case may be. Thus in countries using the Indian Classification data should be collected separately for the maculo-anaesthetic and the Tuberculoid lesions, and in countries using the Madrid Classification it should be collected separately for the macular-tuberculoid and the other components (minor and major) of the Tuberculoid type. This is essential because of the differences in the so-called macular-tuberculoid and the other components of tuberculoid type regarding the extent of nerve involvement and consequent deformities, the evolution of the lesions and prognosis of the disease, and the response to treatment.

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