Here again the individual would enter the statistics, but would he be classed as an active case of tuberculosis?

To multiply examples of that kind would be boring, so let us come back to the field of leprosy, first among symptom-free contacts. Many years ago there were reports of lymph-node punctures which revealed in smears what were regarded as leprosy bacilli. More recently certain workers have removed bits of normal-looking skin and made suspensions of them, sometimes finding in concentrates acid-fast rods looked upon as leprosy bacilli. Granting for the sake of argument that the assumption was correct, should the persons concerned be considered active leprosy cases, unless and until symptoms appear?

Take a person in a leprosarium who had lepromatous leprosy but whose lesions cleared up under treatment so that he became eligible for discharge. He elected, however, to remain in the institution. Some years later he dies of, say, pneumonia. At autopsy smears are made from peripheral nerves which—as has not infrequently been the case—revealed that acid-fast still remained. Should he then be regarded as having been an active leprosy case all along? Many such negatives discharged in the chaulmoogra days subsequently suffered relapse, and then they were active cases again.

On the other hand, let us take a tuberculoid case with lesions which, by observation or the patient's history, are known to be progressive. No bacilli can be found in smears, or even in sections of a biopsy specimen. Here we have clinical activity in spite of bacteriological negativity.

How, then, should “activity” be defined? It is easier to say what it is not than what it is. Surely, if a patient is put under treatment and his lesions become definitely recessive, then activity of the disease process has ceased and it has begun to undergo resolution. That holds for the moment, whether improvement will continue in the future to a favorable termination, or cease at some point along the way and relapse occur.

To most people, we venture to say, an active case of leprosy is one with the disease in vigor, progressive or liable to progress if permitted. To avoid confusion, we suggest, it would be well to confine the term to that sense, and to employ some other designation or designations, even if less simple and convenient, for cases in which the disease process is clearly recessive or residual but still bacteriologically positive.

—H. W. Wade

REGIONAL DIFFERENTIATION IN ALOPECIA OF THE EYEBROWS IN LEPROMATOUS LEPROSY

That the patient with lepromatous leprosy is liable sooner or later to lose his eyebrows is common knowledge. Not of common knowledge is the reason for the curious fact that the lateral portions of the eyebrows—the outer third, or perhaps half—should be affected first and for a long time most severely. No attempted explanation of this minor but intriguing peculiarity has been found in any text consulted.
Some twenty years ago, in personal conversation, N. E. Wayson, then at the Kalihi Hospital in Honolulu, offered an explanation which—as we vaguely recalled it—had to do with some developmental factor. He was recently asked about it, but it turned out that he himself did not recall it either; he offered the very broad suggestion that the condition would be ascribable to an evolutionary or phylogenic development rather than an ontogenic one—i.e., evolution of the species rather than of the individual.

The question was then passed to an anatomist known to be especially interested in embryology, Cummins, at Tulane University, with the expectation that at least a satisfactory theoretical answer would derive from that discipline. That proved not the case; Cummins offered suggestions and then advised that inquiry be made of two anatomists who have specialized on the hair, Trotter in St. Louis and Danforth at Stanford. In the meantime certain of our regular correspondents were told of the inquiry and they cooperated, so that contributions have been received from Hoerr, in Cleveland, Warren, in Detroit, and—following a suggestion by Wolcott, of Carville—Kindred, of Charlottesville, Va. We desire to express appreciation of the cooperation of all of these contributors.

The essential features of the replies received appear as a symposium in the correspondence section of this issue. They offer interesting and provocative reading, although there is no consensus to be derived except that there is nothing known in embryology that would explain the peculiarity—or, for that matter, in the field of phylogeny.

Cummins offers suggestions to which the two specialists on the hair to whom he recommended the question be referred also subscribe, with further comments. One of them, Trotter, points out that there are other conditions which affect the lateral part of the eyebrow earlier than the medial part, so that this peculiarity of selection is not confined to alopecia. The other, Danforth, is under the impression that this differential loss of hair occurs in other conditions than leprosy. In keeping with that view is a case report which was chanced upon during the period of this inquiry. A young Negro child who had ingested a rodenticide whose active ingredient is a dicumarin derivative (Warfarin), an anticoagulant, suffered severe abdominal distress, with copious vomiting and diarrhea, but soon recovered. Two to three weeks later, however, she lost—temporarily—almost all of her scalp hair, part of the eyelashes—and the outer thirds of the eyebrows. [Cornbleet, T. and Hoit, L. A.M.A. Arch. Dermatol. 75 (1957) 440-441.]

One of the contributors, Hoerr, makes the pertinent suggestion that the answer may lie in pathology rather than embryology. We know of no inquiry on the point. Dual biopsies of patients from the two parts of the region concerned would be slightly difficult to obtain under most circumstances. Such specimens might be gotten in an active autopsy service in a leprosarium, but usually that mutilation of the faces of dead bodies would not be permissible. In any event, if there should be found a pathologic difference—e.g., in degree or location of lepromatous infiltration—there would still remain the question of why that should be.
Warren, a dermatologist, first considers the phylogeny suggestion, and then speculates about the blood and nerve supply of the region. He is no more successful, however, at arriving at a definite explanation than anyone else.

The tip from Wolcott that Kindred had expressed the view that the lateral parts of the eyebrows have different embryologic origin from the medial part seemed promising. Kindred supplies information about his study of a cyclopean monster which led him to offer that suggestion, but then he proceeds to point out anatomic features which lead to the conclusion that the shifting of the germ layers in this region during development must be so great that changes in later life can hardly be ascribed to that factor.

We come out, therefore, about where we went in with respect to a specific answer to the question of why, in lepromatous leprosy—and, it appears, in other conditions as well—the lateral parts of the eyebrows are more susceptible to loss than the medial portions. If any reader can offer an explanation to this intriguing question, there are others than leprologists who would be interested to learn of it.

—H. W. W.