On the relationship of some forms of integumentary atrophy / by Dyce Duckworth.

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with the Author's compts.

ON THE

RELATIONSHIP OF SOME FORMS OF INTEGUMENTARY ATROPHY.

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THE subject of localized atrophy occupies at the present time a somewhat indeterminate place in nosology.

In this communication I wish more particularly to call attention to some forms of local wasting which occur in the integument, and to point out a relationship which I conceive to exist between them.

It is, perhaps, not sufficiently realized that morbid conditions may be of greater or less intensity, and it is still common for bodily ailments to be regarded too much as definite entities, and also as definite quantities, whenever and wherever they exist.

Putting aside acute diseases generally, it is certain that many chronic disorders occur in varying degrees of intensity. This is true of phthisis, Bright's disease, diabetes, myelitis, and of many skin diseases. A relationship exists between the milder and graver forms, although the expression of it may not always be completely manifested.

I believe this to be the case with respect to localized atrophies, and I shall now refer to such instances as claim the attention of the physician.

To take, first, the simplest forms, the pigmentary diseases. There are the two conditions recognised as leucopathia and canities, affecting respectively the Malpighian layer of the skin

and the colouring matter of the hair. In the same case, the one tissue may be affected by itself, or both may be influenced together. The pathogeny of these conditions is now attributed, rightly or wrongly, to defective innervation. In my opinion, strong evidence in favour of this view is, in many instances, not far to seek.

Passing next to more obvious atrophies, there are met with sharply defined patches of area in which the hair is lost and the integument distinctly wasted, so that it is depressed below, and less sensitive than, the surrounding parts, also thin and glossy. This is a disorder which has been the subject of much study and debate. For a long time this disease was supposed to be a form of ringworm, and a definite epiphyte was described and depicted as its cause.

Of late years this view has been discarded, and the theory of defective innervation has been invoked to explain the phases of the derangement. Later still, this theory has been assailed, and certain bacteria have been described as the vicious agents, thus restoring the parasitic idea. For myself, I hesitate to accept the latter theory, believing it to be inconsistent with clinical observation as applied to the whole phenomena of the disorder. I have elsewhere[1] expressed my views at length as to the nature of area, and shall only add that this disease may occur in varying degrees of severity, being sometimes mild and temporary, and sometimes grave and permanent.

It is not unimportant to note further that pigmentary atrophy is sometimes associated with it in the form of leucoderma, and that such change always accompanies the restoration of the parts, skin and hair, to health.

From this condition I pass to consider the local atrophy observed in maculated and striated patches, and that resulting ultimately from scleroderma in some of its varieties. In these cases there is always to be noted a primary phase, of which vascular disturbance and new growth form part. It is a matter of common opinion that these lesions result from disordered innervation, and many facts support this view, especially those which indicate that the disease follows the line of distribution of certain nerves, and may be the seat of sensory disturbances. It is also interesting to note that pigmentary changes are sometimes associated with these conditions. I am aware that dermatologists place scleroderma and morphœa, which I believe to be only varieties of one malady, amongst hypertrophic affections, and in their earlier phases this may be justifiable. But in the evolution of many cases the atrophic stage is reached, and this, I think, must be held to warrant the inclusion of these disorders amongst local atrophies.

The local changes described as "glossy skin" may fairly be mentioned in association with the nutritive perversions just men-

[1] *St Barth. Hosp. Reports*, vol. viii., 1872, p. 144.

tioned, and no doubt can be entertained as to their direct dependence upon nerve-injuries.

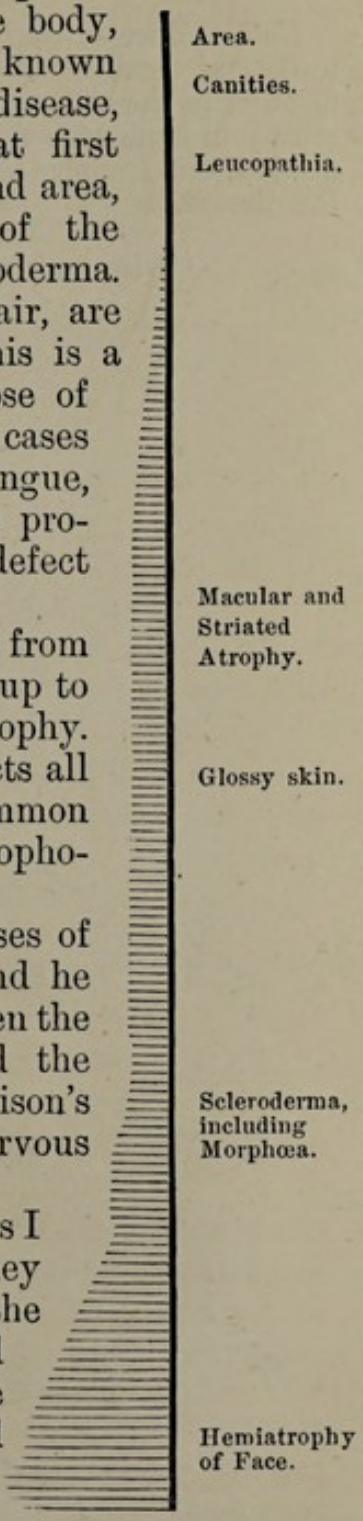
I come, lastly, to the most extreme form of acquired localized atrophy anywhere met with in the body, namely, that definite and accentuated disorder known as *Hemiatrophia facialis progressiva*. This disease, though happily somewhat rare, presents at first many features in common with leucopathia and area, and, ultimately, many of the characters of the atrophy reached in ordinary forms of scleroderma. Pigmentary changes, both in the skin and hair, are sometimes associated with this change. This is a disorder which affects tissues other than those of the integument, since the atrophy in some cases distinctly extends to the bones, cartilages, tongue, and other structures. To my mind, no more profound or exquisite example of nutritional defect due to perverted innervation can be adduced.

I have now traced a series of local atrophies from the simplest expression in pigmentary change up to the gravest form met with in unilateral facial atrophy.

I believe that a chain of relationship connects all the varieties I have mentioned. The basis common to all is a neurosis, or, more strictly, a tropho-neurosis.

Professor M'Call Anderson has described cases of leucopathia (vitiligo) associated with area, and he believes there is a very close relationship between the two conditions,[1] as also between them and the cutaneous pigmentary manifestations of Addison's disease, all being dependent upon perverted nervous influence.

I believe a right conception of all the disorders I have here called attention to will be formed if they be placed in the category of tropho-neuroses; the least expressed forms, such as leucoderma and canities, being at one end of the scale, and the most marked forms, such as scleroderma and progressive facial atrophy, at the other. The relationship I seek to express may be diagrammatically represented by the accompanying figure.



It is beside the purpose of this communication to enter upon the vexed, and most important question of trophic nerves, or the exact mechanism of the production of the several disorders I have mentioned.

These trophic changes are more frequent in the lines of distribution of certain nerves than in others, and the parts supplied by

[1] *Glasgow Med. Journal*, 1879.

the fifth nerve are perhaps more commonly affected than other districts. Especially are the changes grave and profound when the Gasserian ganglion is implicated.

Note.—Since writing the above I have discovered that Dr Duhring has included unilateral facial atrophy as a form or variety of morphœa.[1] He places the disorder in the category of the *Hypertrophies*, along with scleroderma, etc. I must join issue with this eminent authority on the question of his exact classification, but I rejoice to be supported by his opinion as to the general type of the disease.

[1] *Diseases of the Skin*, 2nd edit., Philadelphia, 1881, p. 381.

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