CASE III.—M. S., aged 40, domestic servant, came to the hospital on February 14th, 1901, with an alopecia areata patch over the right ear. The surface hair contained a surface layer of white hairs spread over the original black hair beneath. This appearance, together with the bald patch, resembled the first case so nearly that some of the hairs were examined under the microscope. The latter showed moniliform structure with pigment broken up and distributed in nodes as well as internodes. (See No. 2 in Fig.)

CASE IV.—H. D., female, aged 51, came to the hospital on March 7th, 1901, complaining of a chronic skin trouble. On one knee was a circumscribed patch of seborrhoeic eczema, the size of a hand, that had been there for fourteen years. The scalp was scaly; there were several "nits" in the hair, a few papules on the margin of the hairy scalp; two or three scattered bald patches of areata, and signs of old eczema in the ears. Some of the grey hairs and brown hairs turning grey showed a characteristic moniliform arrangement. (No. 3 in Fig.)

CASE V.—A. C., aged 35, female, came to the hospital on October 4th, 1901, complaining of loss of hair in patches. Two of her children suffered from ringworm, but had been well some five months. An aunt who visited them said she was losing hair in patches, and used patient's hair-brush. Some of the grey hairs showed a moniliform arrangement, chiefly with long and tapering nodes, the pigment being broken up and distributed independently of internodes (No. 4 in Fig.).

These cases suggest that a moniliform condition of the hair may be acquired and associated with alopecia areata. Case IV fits in with Sabouraud's theory of the common origin of seborrhoea of the head and body, and of alopecia areata of the scalp. Possibly some varieties of moniliform hair may be entitled to a place on his list. Assuming a toxic disturbance of the nutrition of the hair shaft due to the invasion of the micro-organisms of seborrhoea, the traction upon the weakened hair in the daily brushing might be a mechanical cause of the beading. In the nails one often meets with a beading of a longitudinal ridge that appears to correspond closely with the moniliform beading of hair.

CASE OF COMPLETE BALDNESS FROM ALOPECIA AREATA.

(IN PROGRESS OF RECOVERY UNDER TREATMENT.)

By BALMANNO SQUIRE, M.B.LOND.

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THOSE who take interest in noting the peculiarities of people they meet, and who live in London or any large city, have opportunity for recognizing again and again a type of person presenting a certain peculiarity which once noticed rivets the attention by its quaintness. These people have a strong family likeness to one another, and their points of resemblance are so striking as in some measure to outweigh their points of difference, so that any one who has once taken to noticing them is apt to think, in this or that case, that he has come across that person before although he may have never previously seen him. To any observer not specially interested in these people it seems that persons of this type are limited to the male sex, but a very slight experience of them soon assures him that they are not limited to any social grade. They are not, for example, like pock-marked people (who in their way have some uniformity of type), to be met with mainly amongst the humbler class. Nor does the appearance of the people I speak of suggest, as in the latter case, pre-existent disease or look at all unhealthy.

Men of the type in question, one and all, present the aspect

of having very faint eyebrows; the edges of their eyelids look puffy, as if slightly swollen. In addition, they are always clean-shaven, and the hair of their head looks odd, does not seem to grow in the same way as that of most people, is not arranged in any customary way, and yet looks pretty much the same in all these persons. As a matter of fact they have no eyebrows; the rounded-off edges of their lids are the consequence of the complete absence of eyelashes. They look clean-shaven because they have no more hair on their face than a woman has, and the odd appearance of their hair is due to their wearing a wig. When, not so very long ago, it was common for middle-aged and old men to wear wigs, one looked out for them more than one does nowadays, and suspected them more readily.

Men of the sort I have described have not a hair on their body anywhere, and yet were once normally hirsute. It may naturally, and indeed correctly, be assumed that efforts made to remedy the condition they present have in their case failed, and a further conclusion may with equal justice be arrived at—namely, that attempts to arrest the progress of their depilation in its earlier stages have also failed.

In every case, or at all events in 99 cases out of 100, the condition of these persons is due to one cause only, and that is that they have been the subjects of alopecia areata. And yet alopecia areata is not so very common a disease. It constitutes about 2 per cent. of the total number of cases presenting themselves at a skin clinic. To compare the frequency of its occurrence with that of another disease which has been very much under discussion of recent years, it is just about as common or as rare as lupus. But the disease seems to be less relatively rare than it really is, owing to the circumstance that the subjects of complete or universal alopecia areata are always on view for the rest of their lives.

Women are as liable as men to this disease, but in them it is far less noticeable. A wig is much less obvious in the case of a woman than of a man, and what with the aid of veils, of the shadow cast by artificial hair brought well down over the forehead, and other devices, the absence of eyebrows is less remarkable. Often enough women, the subjects of complete alopecia, will wear cunningly-constructed eyebrows such as avert notice except at close quarters, and others are clever in the use of burnt cork or the *crayon noir*.

Enough has been said to show that the condition is not extremely uncommon, and that the resources of art often fail to arrest its progress, and *a fortiori* to remedy it when complete.

As a matter of fact, complete alopecia areata is a condition extremely difficult to improve, and it is possibly correct to say, although the assertion may seem bold, that no one has ever succeeded in remedying complete alopecia areata, unless, maybe, in very rare instances indeed. It might perhaps be said that any notable improvement of complete alopecia is of itself an extremely rare event. If this be so, it may be of interest to record an example in which, under somewhat exceptional conditions, very notable improvement has been obtained. These conditions were furnished by the patient himself; they were exceptional hopefulness, endurance, and patience. From a condition of complete baldness he has succeeded in bringing his head to the condition represented with careful accuracy in the illustration, and he still continues to improve, but it has taken him more than a year to attain this result. To be accurate he has had precisely thirteen months and twenty days of almost continuous treatment. It may be interesting to state that, in the patient's view, the whole business up to now is a satisfactory one—that he thinks the game worth the candle.

When first seen by me (on December 8th, 1900) the patient, a man aged 37, had no dark, no coloured hair at all, on his scalp, but only a little, very short, colourless, fluffy down at the top of his head, and a little of the same "down" over a limited region on each side of the head. At the back of the head (occipital region) the scalp was quite polished in appearance. His eyebrows were completely absent, and he had no eyelashes. The hair of his moustache, beard, and whiskers, was patchily affected—very considerably so. I prescribed for him, as an application: Hydrargyri iodidi rubri gr. xxx; yellow vaseline, 1 oz. He has applied this ointment to his head right through the whole of the period from December,

1900, to January, 1902, except for six weeks in the summer, namely, during the hottest weather (July and August), and he omitted it then because wearing the linen skull cap, which I recommended him, made his head uncomfortably hot, at all events at night.

In using the ointment he has persistently done as directed—that is to say, he divided the hairy scalp into eight imaginary divisions or regions, and has applied the ointment to one of these divisions on one day, to another the next day, thus going over the whole of the hairy scalp in a period of eight days, and then reverting to the division or region first treated, and so on so that the whole of the scalp in this manner had ointment applied to it once in eight days with undeviating regularity. This ointment, of course, produced a sensation of heat with redness of the skin, followed by desquamation, so that during the whole period of treatment some part of his head was tender. He was not directed to have any internal treatment, but only ointment.

It was quite six months (after I first saw him in December, 1900) before any hair showed itself—that is, before he saw any difference at all, and his hair has only made anything like the show it now makes about three months ago—that is, dating back from January 28th, 1902.

January 28th, 1902. Now his head is patchily furnished with dark brown hair, some of which is quite 3 in. long—namely, as seen in the illustration. His hair is about the same on both sides of the head. It may be said that pretty well half the total superficies of the scalp is furnished with dark brown hair, and that at no part is the scalp absolutely hairless. His

eyebrows and eyelashes, which when he was first seen by me were entirely wanting, are now complete, although somewhat scanty in general appearance. The hair of his face is more abundant, although, because of his shaving his whiskers and beard, the condition of these does not show in the illustration.

THE CAUSATION OF DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

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(From the Physiological Laboratory of the University of Melbourne.)

(Continued from page 821.)

II.—VAGUS INHIBITION AS A CAUSE OF CIRCULATORY FAILURE.

As experience showed that circulatory failure was most prone to occur in the early stage of chloroform administration, it was essential to be able to study the phenomena occurring during this period. To attain this end two methods were employed:

(a) Connecting the carotid artery with the manometer under morphine anaesthesia only. The air containing the chloroform was administered through a trachea tube, and therefore did not come into contact with the nose or larynx.

(b) Preparing the dog for connexion with the manometer under ether anaesthesia eight or ten hours previously, so that, when the effects of the anaesthetic had passed off, the carotid artery had only to be connected with the manometer. By this method the nervous system of the dog was in its normal condition when the record of the induction was started.

(1) Results of Experiments with Morphinized Dogs.

One hundred and twenty experiments were performed. It was found that when air containing more than 2 per cent. of chloroform vapour was administered, slowing of the heart ensued, and that when higher percentages were employed the degree of the inhibition was rapidly intensified.

The slowing of the heart was accompanied by a steady fall of blood pressure, which rose rapidly on section of the vagi. (See Tracing 2, pp. 886-887).

When the percentage was raised to 2.5 per cent. the inhibition of the heart was so marked as frequently to stop it suddenly and completely. With this percentage strength, however, the heart always recommenced.

With 3 per cent. or upwards the recovery of the animal was not constant, for the inhibition lasted several minutes (as long as seven and a-half minutes), and although the heart escaped ultimately to some extent, in these prolonged inhibitions such escape was often too late. The circulatory system was too nearly paralysed by chloroform and the asphyxia consequent upon cessation of circulation to admit of recovery being possible. Artificial respiration was maintained till after the heart had permanently ceased. (See Tracings 3, pp. 888, 889, and 4, p. 890).

This slowing or cessation of the heart beat was due to stimuli passing down the vagi, for:

(a) It never occurred in animals in which the vagi had been divided.

(b) When occurring in animals with intact vagi, it immediately disappeared upon section of both of them. (See Tracings 2 and 4).

In non-fatal cases, when the heart recovered from the inhibition, the blood pressure usually rose rapidly, the pulse often being quick as though the vagi had been cut.

The possibility of the heart's recovery appears to depend upon the extent of the damage that it has sustained from the chloroform ere the inhibition came on.

The effects of a persistent vagus arrest of the circulation is seen in Tracing 3. In this experiment, in which artificial respiration was employed throughout, it is seen that the vagi have arrested the heart's action at a time when the blood pressure has been brought down to 40 mm. of mercury pressure by the chloroform. The vagal inhibition was fatal. The