THE INFLUENCE OF AGE IN THE CAUSATION OF SKIN-DISEASE.

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I HAVE on a previous occasion referred in the columns of this JOURNAL to the question of *race* as bearing on the etiology of cutaneous diseases; and I have done so, because I believe that attempts to elucidate the at present obscure etiology of this common class of diseases are the best means by which permanent improvements in their therapeutics are eventually to be arrived at; that, in short, in this as in other matters, the discovery of the cause is the real key to the cure. I conceive that the best mode of opening so wide and so important an investigation is by deciding, in the first instance, such broad and general questions as the influence of race, age, climate, etc. I accordingly now offer to the readers of the JOURNAL the results of a comprehensive study of five thousand consecutive cases of cutaneous disease (taken from the carefully kept Register of the British Hospital for Diseases of the Skin), in their bearing on the influence of *age* in the causation of skin-disease; and, for the more ready comprehension of the subject, I have exhibited my results by means of a series of tables.

The following tables will serve to show the effect of age in the causation of skin-disease, as ascertained by the analysis of five thousand consecutive cases taken from the Hospital Register.

In each table the range of life from birth to ninety years of age has been divided into eighteen equal periods of five years.

In the *first* table, the five thousand patients of each sex are distributed, according to their age at the time of their application, amongst these several periods.

In the *second* table, the results given by the first are corrected and checked by sorting the cases in a somewhat different manner—viz., by distributing the same patients amongst the same periods, but according to the age they had attained when their disease first commenced, instead of their age at the time of their application.

The two tables taken together afford a result which is compounded of the age at which, in each individual, the disease commenced, and at a later age at which, in the same person, the same disease was known to be still existing. Thus a more accurate view is presented of the effect of age in the causation of skin-disease than could be derived from either of the tables separately.

Of the five thousand cases, two thousand six hundred and eighty-six were males, and two thousand three hundred and fourteen were females.

Of the five thousand cases, at the time of application at the hospital, the age of the youngest male was six weeks, and of the youngest female one month; the oldest male was eighty-nine, and the oldest female eighty-two years.

Of the five thousand cases, at the time of the commencement of the disease, the age of the youngest male was one week, and of the youngest female two weeks; the oldest male was eighty-eight years, and the oldest female eighty years.

It is clear, however, that the above tables, even with the assistance afforded by the binocular view which they present of the effect of age as influencing skin-disease, are yet incapable of themselves of showing what periods of life are most obnoxious to cutaneous disorders. For example, it would not appear from these tables that skin-disease in the male is commoner at the age of seventy than it is at the age of five, since (although the tables, as will be seen, produce that result) a superficial glance at them would rather convey the very opposite impression.

To arrive at a practical conclusion, it is necessary first to know the proportion of persons living at each of the several periods of life, amongst

TABLES SHOWING THE INFLUENCE OF AGE IN THE CAUSATION OF SKIN-DISEASE.

TABLE I.

Age at the time of application to the Hospital.	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 to 90	90 to 95	100 and upwards.	Total of all Ages.
Males	263	116	133	241	354	329	284	209	194	136	153	72	85	41	45	21	7	3	..	..	2686
Females	209	169	130	264	274	286	227	157	171	104	120	63	62	41	26	8	3	..	..	..	2314
Both sexes	472	285	263	505	628	615	511	366	365	240	273	135	147	82	71	29	10	3	..	..	5000

TABLE II.

Age at commencement of Disease.*	Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 to 90	90 to 95	100 and upwards.	Total of all Ages.
Males	315	134	184	324	374	300	231	198	155	123	121	69	67	36	31	17	5	2	..	..	2686
Females	281	168	191	298	276	294	180	149	130	93	97	50	42	36	23	3	..	..	..	..	2314
Both sexes	596	302	375	622	650	594	411	347	285	216	218	119	109	72	54	20	8	2	..	..	5000

TABLE III.—Census (taken on April 8th, 1861) of the Population of London, as published by the Census Office, July 1st, 1863.

Both Sexes.	Males and Females.	Under 5	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85-	90-	95-	100 and upwards.
London: M.	1,307,781	180,893	149,335	130,799	119,949	122,548	111,668	102,755	88,336	82,068	62,782	51,497	34,985	30,438	17,614	12,241	6,133	2706	779	183	38	4
2,803,989 F.	1,496,208	181,403	150,924	133,550	139,206	154,841	140,367	122,012	102,151	93,832	71,408	61,231	43,202	40,878	25,322	18,862	10,061	4821	1615	412	93	17

TABLE IV.—In which the Statistics of the Population of London (reduced to a total of five thousand) are contrasted with the Statistics of Five Thousand Persons affected with Skin-Disease.

	Males and Females.	Under 5	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85-	90-	95-
Affected with skin-disease.	Males	289	125	159	283	364	315	258	204	174	129	137	70	76	38	38	19	6	2	..	..
Population of London (reduced)	Males	323	267	233	214	219	199	183	158	146	112	92	62	54	31	22	11	5	1	..	..
Affected with skin-disease.	Females	245	169	161	281	275	290	204	153	150	98	108	57	52	38	25	5	3	..	..	..
Population of London (reduced)	Females	324	269	238	248	276	251	218	182	167	127	109	77	73	45	34	18	8	3	1	1

TABLE V.—Statement in Decimal Figures (calculated from Table IV) of the comparative liability of Males and Females respectively to Disease of the Skin at successive (equal) Periods of Life.

	Under 5	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85-	90-	95-
Males	.894	.468	.682	1.322	1.662	1.582	1.409	1.291	1.191	1.151	1.489	1.129	1.407	1.225	1.727	1.727	1.2	2.	..	..
Females	.756	.628	.676	1.133	.996	1.155	.935	.84	.898	.771	.99	.74	.712	.844	.735	.277	.375	..	..	..

* As computed by deducting the duration of the disease (as stated by the patient at the time of his application to the hospital) from his age at the date at which he presented himself.

which, in these tables, the five thousand cases of cutaneous disease have been carefully sorted (and this information is accurately afforded by the census-returns), and then to compare the proportion of persons affected with skin-disease at each period of life with the number of persons ascertained to be living at each of such periods respectively. This computation is effected in the tables that follow.

Table III is a transcript of the (as yet) last published census of the population of London.

In Table IV, the ascertained statistics of the five thousand cases of cutaneous disease are contrasted with a parallel statement of a *general* population of five thousand, the items of which are calculated from the census of the population of London, shown in Table III; so that in Table IV is shown, at a single view, how a population of five thousand cutaneous patients is distributed amongst the various periods of life, and, at the same time, how a population of five thousand people of all kinds is distributed amongst the same periods of life.

In Table V is shown the results obtained by the comparison of the one with the other—that is to say, each of the figures in the first and third lines of Table IV has been divided by the corresponding figure placed beneath it; namely, in the second and fourth lines respectively, and the result expressed in decimals, which display the relative liability to skin-disease of each of the stated periods of life.

In the diagram drawn below is presented a pictorial view of the results obtained in Table V—the black zig-zag representing the results arrived in the cases of males, and the dotted zig-zag the results in the cases of females.

Further investigation is necessary to establish what may be the precise interpretation of these fluctuations; but it is clear at a glance that, in the female, skin-disease becomes suddenly and markedly more common at the two climacteric periods of life.

Diagram of the Comparative Liability (expressed in decimals) of Males and of Females, respectively, to Cutaneous Disease at different ages.
Thick line—Males. Dotted line—Females.

ALOPECIA: VITILIGO.

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IN my notes of last year, I find a group of cases which cannot but arrest attention—alopecia, not parasitic and contagious, but a form connected with degenerative change, and probably with subinflammatory conditions. I was much struck with what I found in a girl thir-

teen years of age. She had on the vertex a large round patch of alopecia areata. The hair had begun to recover itself freely in its growth, so that there was nothing locally to be remarked. On her neck, and following the margin of the right ear, were streaks and also spots of leucoderma. These were quite away from the hairy scalp. The spots were, as to size, like small *coque de perle*, an orange-pip, or small grape. This girl was of good condition and well fed, not remarkable for complexion, nor any otherwise than for a large-sized head.

Among my cases of leucoderma occurring during the year, I have noted two in which the hair was shed. In one of these, a man of dark complexion, forty-two years of age, numerous white spots or guttae were found on the arms, and, as is frequent, on the back of the hands; more of it also on the lower belly. Much itching accompanied the leucoderma, especially when he was warm in bed. His hair came off in large patches. He attributed his complaint to the small-pox which he had four years ago. In a very similar case, where the hair and complexion were light, there was little itching. The man's age was 47. He looked well-built, but complained of weakness. I have noted the loss and absence of hair in this case, but do not recollect its condition. He had suffered from the leucoderma for a year. The backs of the hands were spotted, and other parts moderately affected. There were none on the scrotum, but on the glans penis there was a pure white spot occupying half its surface. I may here mention a paviour under thirty years of age. Much of his hair came away irregularly and in patches. Of what he had left, a considerable portion was turned quite white; the rest had lost its gloss. He wore his hair long, and it gave him a mangy look. More striking is the following. A woman thirty years of age, married, but without children, had a large round spot of *area* upon the vertex, upon which there is at present some little hair, which obscures it. From this point there extends a narrow ribbon-like track, raised as it advances above the level of the scalp, and terminating on the forehead like keloid. Its path is first to the right parietal and temporal region; thence it bends abruptly to the central parting of the hair, and finally is produced downwards for the length of two inches or more to the centre of the forehead. This linear cicatricial band, denuded or nearly so of hair, opens out on the forehead into two extremities or claws embracing a spot of vitiligo sunk below the surrounding level, of a pure white colour, and as large or larger than a shilling. There is much itching in the affected parts, and elsewhere on the head there is scurf. The fold of the arm on one side displays much dark cloasma, the coincidence of which with alopecia has been remarked on by medical writers.

The occurrence of cases such as these has not been overlooked by physicians. The terms vitiligo of the scalp and *morphea alopeciat*, though not of common acceptance, are significant of study and observation; but yet a pathology is wanting, without which empiric practice is liable to error. I may here suggest that in these changes there is probably an early stage in which something of inflammation is concerned. In cutaneous disease generally, I find the hair come away with a facility that is pretty exactly proportioned to the intensity (I dare not say the duration) of a foregoing inflammation. This is eminently the case in syphilis. Very commonly, indeed, in alopecia, we hear of itching and heat; we also find redness. Thus one of my group of cases complains of "large heat-lumps rising in the head".

In a female aged 27, bookfolder, probably ill fed, there are several round bare spots on the scalp; "they become pink, and never white; they last three months," and then the hair returns, growing with much rapidity. On the face, there is a good-sized erythematous blotch, which she thinks is "all one with those on the head". She is weakly, with bad pain low down in the back. In a young fellow, a draper's assistant, the hair and whiskers are removed in large patches. He is much distressed. He has used the oxymuriate lotion. Every time he speaks with heightened colour in speaking, there are dark coloured erythematous patches, very observable on the face. As he relapses into silence, they are not observable. Still more interesting is the following. A sempstress, married to a broken-down gentleman, and probably overworked, sitting up late at night at her employment, has on each side of the face a very large erythematous blotch, occupying nearly the whole of the cheek, well defined, and level with the skin. The colour is deep red. The eruption does not correspond to any nosological species. It has been coming on for two years. There is no suspicion of syphilis. She has one healthy child, and has had one miscarriage. The treatment is tentative, but chiefly expectant. A lead lotion is employed to relieve irritation, and seems to suit best. During the later months that I had her under view, the following changes took place in the blotches. Near to the margin, and in proportion as it was approached, a paleness gained upon the original stains; it became, in fact, leucodermatous at and toward the circumference. Nor was this all: a copious deposit of brown pigment was