SKIN DISEASE IN THE BANTU

A SURVEY OF 4,000 CASES FROM THE TRANSVAAL AND ORANGE FREE STATE

E. J. SCHULZ, M.MED., D.P.H., and G. H. FINDLAY, D.SC., M.D., *Section of Dermatology, University of Pretoria,* and F. P. SCOTT, M.MED., *Dermatologist, National Hospital, Bloemfontein*

There exists little systematic work on Bantu skin diseases. We have tried to remedy this lack in two earlier papers dealing with skin complaints in the Transvaal Bantu. The first was a survey of 600 skin outpatients made in 1956[1] and the second was an attempt to find out what was known of Bantu skin disease in the Transvaal 50 years ago.[2] Meantime a survey of skin disease among White patients in the Transvaal and Orange Free State was prepared, covering 13,500 cases.[3] It has therefore become possible to compare our figures from Bantu patients over the past few years with those of the Whites in the same area, as well as with published data from elsewhere.

RESULTS

All diagnoses were recorded by one or other of us who agree on most topics in the use of terms. The cases were seen independently, and the classified lists presented here were compiled separately. The total number of separate Bantu cases included was over 4,000 in all, but the groups were not homogeneous and were therefore not thrown together.

Table I

This Table was compiled to provide a picture of dermatological outpatient practice in the Pretoria and Bloemfontein hospitals. The order of diseases in the Table corresponds roughly to the declining frequency of incidence of the diseases seen, down to a frequency of 0·1 per cent. Each series quoted respectively in columns 1 - 3 consisted of consecutively seen Bantu cases, other racial groups being excluded despite their attendance at the same clinic. Where any laboratory investigation or histological test seemed warranted in the slightest degree, these were always done promptly at the first visit, and the final diagnosis recorded accordingly.

Column 1 serves as a standard for the Table and lists the diagnoses in 2,000 consecutive Bantu skin outpatients from the Pretoria General Hospital. The survey period

TABLE I. OUTPATIENT CASES

Column No.		*1*	*2*	*3*	*4*	*5*
No. of Cases		*2,000*	*600*	*1,000*	*?*	*4,500*
Source		*Pretoria*	*Pretoria*	*Bloemfontein*	*Lagos*	*Pretoria*
Group		*Bantu*	*Bantu*	*Bantu*	*Negro*	*White*
	Disease	%	%	%	%	%
1.	Eczemas	27·00	20·00	9·7	1·4 + 3·1 'dermatitis'.	28·00
2.	Impetigo	9·4	14 incl. 6	19·8 incl. 6 & 17	5·4	7·8
3.	Acne	9·15	7·5	2·8	0·6	8·0
4.	Pellagra	6·3	5·0	6·3	2·8 (all malnutrition).	nil
5.	Syphilis	4·35	2·6	3·1	1·4 + 7·3 yaws	nil
6.	Pyodermas	3·1	see 2	see 2	see 2 & 16	1·6
7.	Fevers	3·2	2·0	0·5 (varicella)	nil	0·1
8.	Warts	2·45	2·5	2·0	0·5	5·9
	Plantar warts or corns	1·25	1·0	4·7	—	—
9.	Scabies	2·4 + 1·5 (?)	11·0 (?)	11·3 (?)	25·0	2·5
10.	Pityriasis versicolor	2·4	3·0	0·5	—	0·4
11.	Pityriasis rosea	2·4	1·5	0·8	—	1·0
12.	Erythema multiforme	2·1	1·7	0·4	—	0·6
13.	Lichen urticatus	2·05	see 9	0·4	—	1·2
14.	Fungous infections (tinea, moniliasis)	1·85	2·0	1·6	29·0	6·9
15.	Toxicodermas (incl. fixed eruptions)	1·75	1·0	0·4	—	0·2
16.	Urticaria	1·7	2·0	1·7	1·3	2·3
17.	Furuncle, carbuncle	1·6	1·0	see 2	4·8	1·1
18.	Psoriasis	1·45	1·0	1·3	—	3·2
19.	Lichen planus	0·9	0·5	1·4	1·15	0·5
20.	Parasitoses	0·8	2·0 (*b*)	nil	—	0·2
21.	Zoster	0·75	1·0	0·4	0·7	0·6
22.	Tuberculides	0·65	0·7	0·3	—	—
23.	Cheilitis	0·6	—	0·5	—	0·2
24.	Lupus erythematosus	0·6	0·2	0·7	—	0·9
25.	Sandworm	0·55	— (*b*)	0·1	—	2·4
26.	Hyperidrosis	0·5	0·5	nil	—	0·2
27.	Keratoderma, palmoplantar	0·5	see 8	0·8	1·15	—
28.	Ulcers, various	0·5	— (*a*)	0·1	—	—
29.	Folliculitis, sycosis, pseudofolliculitis	0·45	— (*a*)	see 2	0·6 (sycosis barbae)	0·6
30.	Porphyria	0·45	1·0	2·6	—	0·2
31.	Leprosy	0·4	— (*a*)	0·7	2·4	nil
32.	Erythema nodosum	0·4	1·0	0·2	—	0·5
33.	Sporotrichosis	0·35	—	—	—	—
34.	Stomatitis, glossitis	0·3	—	—	—	—
35.	Chloasma	0·3	—	0·4	—	0·1
36.	Tumours of epidermal appendages	0·3	—	—	—	—
37.	Lupus vulgaris	0·25	0·7	0·5 + 0·5 (scrofuloderma)	—	—
38.	Herpes simplex	0·25	1·5	nil	—	0·3
39.	Molluscum contagiosum	0·25	1 case	0·1	—	0·2
40.	Granuloma pyogenicum	0·25	— (*a*)	0·6	—	0·1
41.	Ichthyosis	0·2	—	0·2	—	0·3
42.	Prurigo group	0·2	—	see 13	—	0·2
43.	Pruritus	0·2	—	—	—	0·6
44.	Light eruptions	0·2	1·0	nil	—	0·6
45.	Alopecia areata	0·2	2 cases	nil	—	0·6
46.	Sarcoid (Boeck)	0·15	—	0·1	—	0·01
47.	Lymphoedema	0·15	—	—	—	—
48.	Phrynoderma	0·15	—	—	—	—
49.	Corns, calluses	0·15	—	see 8	—	0·6
50.	Vitiligo	0·15	— (*c*)	0·7	0·7	0·4
51.	Carcinoma, squamous	0·15 (albinos, arsenical)	1 case (sebaceous ca. scalp)	0·5 (4 mucosal, 1 seb. ca. scalp)	—	0·7
52.	Ulcer, varicose	0·1	1 case	0·8 incl. leg eczemas)	—	1·2
53.	Cysts, usually sebaceous	0·1	—	0·1	—	0·2
54.	Keloid	0·1	—	0·4	—	0·1

TABLE I. OUTPATIENT CASES—*cont'd.*

Column No.	*1*	*2*	*3*	*4*	*5*
No. of Cases	*2,000*	*600*	*1,000*	*?*	*4,500*
Source	*Pretoria*	*Pretoria*	*Bloemfontein*	*Lagos*	*Pretoria*
Group	*Bantu*	*Bantu*	*Bantu*	*Negro*	*White*
Disease	%	%	%	%	%
55. Fibroma	0·1	—	nil	—	0·2
56. Nail dystrophies	0·1	—	—	—	0·2
57. Hairfall	0·1	—	—	—	0·1
58. Rosacea	0·1	?	nil	—	0·2
59. Dermatitis herpetiformis	0·1	0·5	0·2	—	0·1
60. Pigmentation, postinflammatory	0·1	— (*c*)	0·4 (all melanoses)	—	—
61 Melanosis (Riehl)	0·1	— (*c*)	—	—	—
62. Scurvy	0·1	—	0·2	—	—
63. Pityriasis lichenoides chronica	0·1	—	—	—	—

(*a*) Miscellaneous = lepromatous leprosy, sycosis nuchae, granuloma pyogenicum, perforating ulcer and 2 cases resembling Madura foot. Total 1%. (*b*) Insect bites, lice, sandworm and cutaneous bilharziasis. Total 2%. (*c*) Vitiligo, Riehl melanosis, depigmentation of the lower lip, etc. Total 1·5%.

covered 2½ years ending in mid-1961. Three-quarters of the cases were seen by E.J.S. and one quarter by G.H.F.

Column 2 recapitulates the diagnoses of 600 cases seen by G.H.F. in 1956 at the same hospital outpatient department as in column 1.

Column 3 gives the figures of 1,000 consecutive cases seen by F.P.S. at the skin outpatients department of the Bloemfontein General Hospital over the past 4 years.

Column 4. These percentages are abstracted from the introduction to Clarke's book on *Skin Diseases in the African*.[4] Unfortunately Clarke does not mention the size of his group from which the percentages were calculated. The period over which the figures were compiled is also not mentioned. His figures do not of course apply to the African patient in general, but refer only to the unspecified group seen by him in Lagos, South Nigeria. His findings

TABLE II. OUTPATIENT SERIES: CONDITIONS OF LOW RECORDED FREQUENCY

Disease	*Series*	*Number of Cases*	*Frequency in Whites (if above 0·1%)* %
Actinomycosis	I, III	6	—
Adiponecrosis neonatorum	III	1	—
Allergide	I	1	0·3
Cornu cutaneum	III	1	0·2
Darier's disease	I	1	—
Dermatosis papulosa nigra	III	2	—
Dermatitis exfoliativa	III	1	0·1
Epithelioma, basal cell (albino)	I	1	4·5
Erysipelas	III	1	—
Granuloma annulare	I	1	0·2
Haemangioma	I, III	2	0·5
Kaposi sarcoma	I, II, III	3	—
Keratosis pilaris	I	1	0·2
Keratosis, solar (albino)	III	4	2·1
Milia	I	1	0·1
Milker's nodules	I	1	—
Mycosis fungoides	III	2	—
Papillomatose confluente et réticulée	I	1	—
Pemphigus vulgaris	III	1	—
Pernio	I	1	0·3
Pityriasis rubra pilaris	I	1	—
Pyoderma gangrenosum	III	1	—
Pyomyositis, tropical	III	1	—
Scleroderma, localized	III	1	—
Sebocystomatosis	III	1	—
Von Recklinghausen's disease	III	2	—
Waardenburg syndrome	III	1	—
Weber-Christian disease	III	1	—

TABLE III. INPATIENT SERIES: PRETORIA GENERAL HOSPITAL

Eczemas 37·75%
Impetigo[2] 7·75%
Erythema multiforme 4·25%
Plantar lesions ('warts') 4%
Sporotrichosis[4] 3·25%
Tuberculides 3%
Ulcers[9] 2·75%
Pellagra 2·5%
Syphilis[5] 2·5%
Pityriasis rubra pilaris 2%
Toxicodermas 2%
Psoriasis 1·75%

1·25%—
Favus
Kaposi sarcoma
Lichen planus
Lupus vulgaris

1·0%—
Dermatitis herpetiformis
Erythema nodosum
Porphyria

0·75%—
Acneform lesions[1]
Carcinoma, squamous[12]
Epidermal tumours[14]
Epidermolysis bullosa letalis
Fevers[10]
Fungous infections[3]
Light eruptions[8]
Lupus erythematosus
Lymphoedema
Parasitoses[11]

0·75%—
Pemphigus
Pyogenic infections[6]
Sarcoid
Scurvy
Warts
Zoster

0·5%—
Epithelioma, basal cell[13]
Urticaria[7]

0·25%—
Adiponecrosis subcutanea neonatorum
Angiokeratoma
Cheilitis
Darier's disease
Dermatofibroma
Dermatomyositis
Fox-Fordyce disease
Granuloma pyogenicum
Ichthyosis
Keloid
Keratoderma, palmoplantar
Madura foot
Mastocytosis
Molluscum contagiosum
Nail dystrophy
Parapsoriasis varioliformis
Pemphigoid
Phrynoderma
Pyoderma
Sandworm
Shwartzmann reaction
Von Recklinghausen's disease
Weber-Christian disease

(1) 1 acne vulgaris, 1 acne conglobata, 1 perifolliculitis capitis abscedens et suffodiens.
(2) Of which 2 were pemphigus neonatorum, 1 Ritter's disease and 2 cases in adults of subcorneal pyoderma with desquamation resembling Ritter's disease.
(3) Tineas and moniliasis excluding favus (1 t. capitis, 1 t. pedis with ide, 1 monilial vulvitis with diabetes).
(4) Of which 5 from a local brickfield.
(5) Of which 7 tertiary, including 1 with pinta-like depigmentation.
(6) 1 cellulitis, 1 vegetating pyoderma, 1 chronic paronychia.
(7) Both from penicillin.
(8) 2 sunburn in albinos, 1 erythema, ? sunsensitivity.
(9) Of which 1 diphtheritic, with a toxogenic *C. diphtheriae* isolated.
(10) 1 scarlatiniform desquamation, 1 varicella, 1 Rickettsial rash (Weil-Felix negative).
(11) 2 insect bites, 1 cysticercosis.
(12) 2 in albinos, 1 in Bantu on leg.
(13) 1 albino (on covered part of back), 1 in a Bantu woman on the face.
(14) 1 naevus verrucosus, 1 naevus comedonicus, 1 trichoepithelioma.

have a regional interest as indicating the recent position in a group of West African Negroes.

Column 5. These figures form part of a Table previously published giving percentage diagnoses in 4,500 White hospital outpatients.[3] This illustrates the comparative incidence of the same disorders in another group living in the same area.

Table II

An alphabetical list is given of conditions occurring with a low frequency in the series described in columns 1 and 3 of Table I. These are also outpatient cases only. The rarities of the column 2 series were not fully recorded, so that the total number of cases from which Table II derives must lie between 3,000 and 3,600. Only where the figures for the comparable White series of 4,500 cases exceeded 0·1% is a comparison of incidence included in the Table.

Table III

Over 34 months, ending in mid-1961, there were 400 Bantu admissions to the inpatient dermatology service at the Pretoria hospital. The diagnoses are expressed in percentages of the total of 400 cases. Consequently a frequency of 0·75% means 3 cases, 0·5% 2 cases and 0·25% a single case.

It may cause surprise to see the diagnoses of some patients who gained admission to our hospital beds. This is because the admission of patients sometimes lies beyond our control, e.g. admission on a magistrate's order, transfers from country hospitals, lack of discrimination at the casualty department, and favours granted to the Bantu servants of influential White employers.

TABLE IV. INPATIENT CONSULTATIONS (134 CASES)

Diagnoses and number of cases		*Single cases and miscellaneous conditions*
Eczemas	23	Acanthosis nigricans
Impetigo	14	Adenoma sebaceum
Fungous infections	8	Atrophodermia vermiculata
Tuberculides	7	Carcinoid
Syphilis	6	Cheilitis
Toxicodermas	6	Epidermolysis bullosa letalis
Acneform disorders	5	Epidermal tumours
Plantar warts	5	Epithelioma, basal cell
Pellagra	5	Erysipelas
Scurvy	5	Erythema nodosum
Leprosy	5	Erythema ab igne
Malnutrition	5	Favus
Warts	4	Fevers
Ulcers, various	4	Granuloma annulare
Pityriasis rotunda	4	Keratoderma, plantar
Ichthyosis	3	Miliaria
Erythema multiforme	3	Molluscum contagiosum
Phrynoderma	3	Parasitoses
Carcinoma, squamous	3	Pemphigus
Cysts, sebaceous	3	Pityriasis rubra pilaris
Verrucosis, lymphostatic	3	Porphyria
Leg oedemas, other	3	Periarteritis nodosa
Psoriasis	2	Prurigo nodularis
Lupus erythematosus	2	Reactions—histoplasmin, P.P.D.
Dermatomyositis	2	Scabies
Kaposi sarcoma	2	Scars
Scrofuloderma	2	Siderosis
Vitiligo	2	Urticaria
		Vasculitis, allergic
		Weber-Christian disease

There is also some slight overlap with the figures of Table I, column 1, of those patients who entered hospital through our outpatient clinic.

Table IV

These 134 Bantu inpatients were seen on other services at the Pretoria hospital, and they do not overlap with other cases in our tables. Most of them were seen by E.J.S. The list merely provides a further indication of the disorders one may see in the Bantu. Since the series was small and differently compiled from the rest, it was hardly worth giving percentage values to the diagnoses.

FURTHER FINDINGS

While the figures presented are, we hope, self-explanatory, a few conditions must be mentioned that are conspicuous by their rarity or absence:

1. Senile and solar keratoses were only seen in the albino Bantu.

2. Seborrhoeic warts do not occur, and if they are represented in the Bantu skin in any way, it would be as the so-called dermatosis papulosa nigra.

3. Leukoplakia, keratoacanthoma, lichen sclerosus et atrophicus, colloid milium, chondrodermatitis helicis, and lipid proteinosis have never been seen by us in the Bantu despite being well known in our White clinics.

4. Moles and haemangiomas are relatively rare in the Bantu.

5. Pruritus ani et vulvae is extremely uncommon. The term anogenital pruritus cannot suitably be used because of the high frequency of eczemas and pruritus of the male genitals.

6. Artifacts and excoriations, such as are found in anxious, hysterical, or malingering White patients, have not been seen in the Bantu.

The only serious matter of classification on which the writers are undecided concerns the itching 'follicular' eruptions. Considerable difficulty is still found with the separation of the follicular eczematides, lichen urticatus, scabies, and insect-bite reactions. If scabies is diagnosed with certainty only when the mite is recovered, which is our normal practice in Whites, the apparent incidence of scabies in the Bantu falls and the follicular eczemas, prurigos, and lichen urticatus go up proportionately. Much tedious work is still needed to clarify the skin and insect problems involved in this field.

SUMMARY

Bantu skin disease as seen in outpatient and ward practice in two large South African general hospitals is analysed and presented with comparative figures for the White skin patients from the same area and for the Negro in West Africa.

We are indebted to the C.S.I.R. Photobiology Research Group for support.

REFERENCES

1. Findlay, G. H. (1957): S. Afr. Med. J., **31**, 471.
2. *Idem* (1961): Med. Proc., **7**, 34.
3. Findlay, G. H. and Scott, F. P. (1960): S. Afr. Med. J., **34**, 159.
4. Clarke, G. H. V. (1959): *Skin Diseases in the African.* London: H. K. Lewis & Co.