than simple diseases of the skin and subcutaneous tissues, and that some of the more chronic forms of dermatomyositis may even be indistinguishable from universal scleroderma. This issue has been confused by the use of the terms scleroderma and sclerema in some quarters as synonyms, a practice which at least in this country, and in view of Dr. Gray's investigations, should be avoided.

Discussion.—Dr. F. PARKES WEBER said he thought that the case represented the so-called complete "hidebound" type of scleroderma which one read of in the old books, one of the earliest recognized types of the disease. There were, however, some particular points about the present case which impressed him very much. There was the "pseudo-leprous" appearance of the ears; he could think of no better term to apply to them. The condition looked like tuberculous leprosy. Then the eyelids were definitely affected in the same way as the skin. He did not think that the tongue and the soft palate were of the hard consistency of the skin, but they certainly were definitely involved in the disease, and their movement was impaired.

He thought that the "rain-drop" depressions in this case marked minute areas of the skin in which there was less sclerodermatous thickening than in other parts.

Dr. MACCORMAC said a section had been taken through the "raindrop" depressions. Speaking without being certain of the facts his impression was that the same changes were present in the skin, though a little less marked.

Dr. C. H. WHITTLE asked whether, in view of the comparative comfort in the face since the extreme swelling had subsided, Dr. MacCormac could give any idea as to the prognosis?

Dr. MACCORMAC said that he had only seen two similar cases and so had not much experience on which to base a prognosis. The œdematous reaction was clearing up without developing into the peculiar hidebound condition which was a feature of the more severe types. So far as he could judge, it seemed reasonable to expect that the patient would continue to improve and possibly recover completely.

The PRESIDENT said that some years ago he had had a similar case in a man aged over 60, in which the condition had cleared up almost completely, leaving merely a certain number of sclerodermatous areas in the skin which however did not affect the patient's general health. The man regarded himself as cured, notwithstanding the hidebound areas of skin over the ribs and in the lumbar regions. He had remained well for some years afterwards.

Dr. WHITTLE asked whether there was any correlation between the rapidity of the spread and the benign character in this case?

Dr. F. PARKES WEBER said that it had always been recognized that the more acute cases of scleroderma had a better prognosis than the chronic progressive cases. There was greater possibility of recovery or improvement.

Acanthosis Nigricans.—G. B. DOWLING, M.D., and W. FREUDENTHAL, M.D.

I.—Dr. G. B. Dowling

The patient, a man aged 62, noticed twenty years ago that his neck was becoming pigmented; he cannot remember very clearly how rapidly the pigmentation spread, but he is certain that there has not been much alteration for many years. About twelve years ago he underwent an operation for gastric ulcer. He has had no abdominal pain since then and has been in satisfactory health.

He presented himself at St. Thomas's Hospital on account of a scaly eruption which resembled psoriasis. On account of the pigmentation—for which the diagnosis of acanthosis nigricans seemed more probably correct than that of Darier's disease—an investigation for evidence of abdominal and pulmonary carcinoma was carried out. An ulcer in the stomach can be seen radiologically, but does not appear to be malignant, according to an examination by Professor Dudgeon on the resting gastric juice. The chest is radiologically normal and there are no physical signs of disease. Moreover, the pigmentation has been present for twenty years, which would seem to

exclude cancer as the cause. It occupies especially the axillæ, the intergluteal fold, and the penis and scrotum. The skin in these regions is almost black, soft, and slightly rugose. Elsewhere it looks freckled and in certain spaces, notably the neck and forearms, the pigmented spots—of a far paler brown than that of the skin in the folds and in the genitals—are so closely aggregated as to be almost confluent. In various parts, but especially on the neck, there are also numerous acuminate rough horny lesions which seem to be located about the orifices of the hair follicles, and which suggest the diagnosis of Darier's disease. Owing, however, to the localization of the deeply pigmented areas to the folds and genital organs, the diagnosis of acanthosis nigricans of benign type seems more probable.

H. Behdjet (*Bull. Soc. Franç. de Dermat. et Syph.*, 1932, **39**, 192) described globular horny bodies in the epithelium ; these were present in all our sections. Behdjet said that published records showed a preponderance of benign cases as opposed to those associated with malignant disease. He also thought it right to dissociate acanthosis nigricans from the papular confluent and reticular papillomatosis of Gougerot and Carteaud, chiefly on account of the localization, depth of pigment, and histological characteristics.

II.—Dr. W. Freudenthal

Histological report : A biopsy made from a section taken near the right axilla shows numerous narrow closely-aggregated epidermal processes running downwards ; some of them heavily loaded with pigment. A few cells showing colloid degeneration are seen, but nowhere is there dyskeratosis, as in Darier's disease. In some places the horny layer dipping downwards forms invaginations ; in others there are small horny pearl-like bodies, like those which, as Dr. Dowling has told us, were observed on one occasion by Behdjet. There is some perivascular infiltrate in the upper cutis. Arising from the walls of the hair follicles a number of narrow, epithelial strands, sometimes pigment-laden, produce a picture resembling that of a tricho-epithelioma. A certain amount of infiltration around the hair follicles is present (fig. 1).

A second biopsy from the right axilla shows similar epithelial processes arising from the epidermis as well as from the hair follicles and especially near their ostia ; horny pearls are fairly numerous, some of them contain pigment (fig. 2).

A third biopsy was taken from a lesion in the loin which looked, clinically, like psoriasis. This shows the same epidermal proliferation and also tricho-epithelioma. In some places there are parakeratotic scales containing horny pearls. The histological picture suggests a psoriasiform exanthem, forming part of the acanthosis nigricans.

Summary.—Histologically we have an acanthosis nigricans associated with tricho-epithelioma, a feature hitherto unrecorded in this disease.

Comment.—The only case in the literature in which the appendages of the skin were found to be involved is that of Hamdi and Reschad (*Virchow's Archiv*, 1927, **263**, 412). The authors describe and illustrate epithelial proliferations of the deeper parts of the sweat-ducts and note that a few " buds " were found on one sebaceous duct and one hair root. (Judging from their two microscopical illustrations we would have thought that the epithelial proliferation was arising from the hair follicle system as it is in our case.) Hamdi and Reschad assume that in their case the atypical proliferation of the appendages of the skin (and in a second case which they had—a dermoid cyst) played the same role in the development of acanthosis nigricans as an abdominal tumour in other cases. In their first case they noticed that around the biopsy wound—in an area about four inches in diameter—the skin manifestations became gradually less marked during the three months following the excision. In our case the biopsies were not followed by regressive changes.

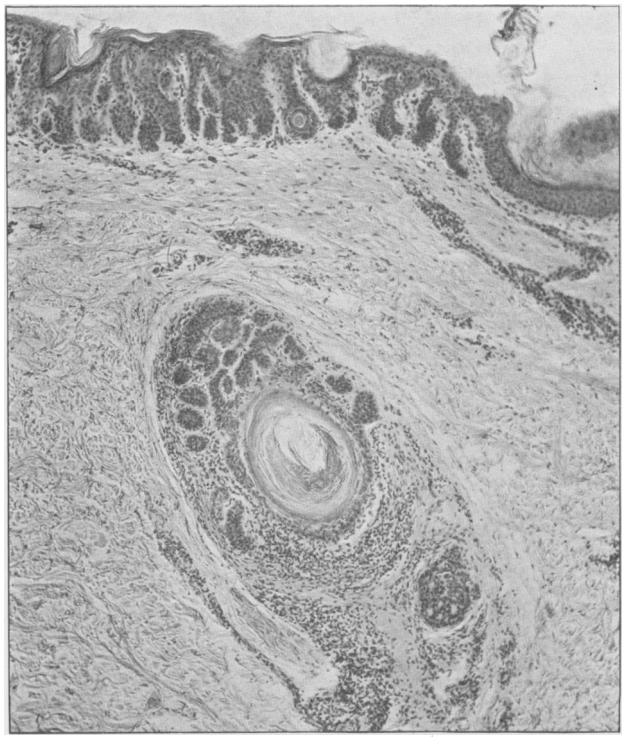

FIG. 1.—Numerous closely aggregated epidermal processes some of them heavily loaded with pigment. "Tricho-epithelioma" arising from follicle wall.

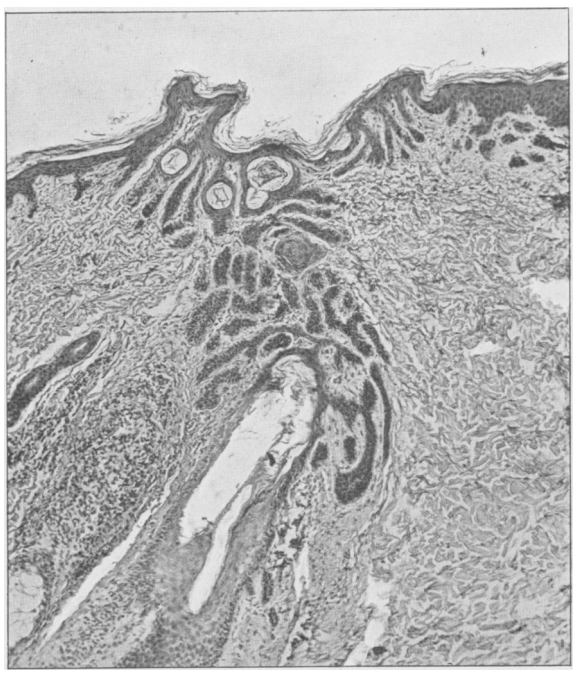

FIG. 2.—Epithelial processes arising from the epidermis and from the hair follicle near the ostium. Several horny pearl-like bodies in the epidermis.

We think that in our case the simplest explanation is that the proliferation of the epidermis and the proliferation of the hair follicles are of the same nature and due to the same stimulus—which is unknown to us. Whatever this stimulus is, it is noteworthy that the picture produced resembles a tricho-epithelioma, a condition which most of us group with the nævi.

The cause of acanthosis nigricans is apparently of a very complex nature, one of the determining factors being a congenital developmental anomaly. This might manifest itself in early life (juvenile cases) or in later life; thus the present case might be interpreted as a nævus tardus.

POSTSCRIPT.—Since the meeting Dr. J. H. Twiston Davies has informed us that several months ago he saw a case of hydradenoma eruptivum, in a girl aged 18, with a ten-years' history. It was accompanied by a slight acanthosis nigricans of the axillary folds.

This might be taken as another instance in which acanthosis nigricans is associated with a nævoid condition.

Dr. NORMAN BURGESS said that he had published a case of acanthosis nigricans in the *British Journal of Dermatology and Syphilis*, 1931, **43**, 169, and had described it as a case of the benign type of the disease.

When he had first seen the patient in 1931 she had had the disease for over a year and it was in a much more advanced condition than that in the present case. Complete investigations, including X-ray examination of the whole alimentary tract, had been carried out in order to discover if any neoplasm was present. All the results had been negative, except that of the fractional test meal which had shown achlorhydria. The patient was kept under observation for over two years and was admitted to hospital periodically during this time but no evidence of neoplasm was discovered. Nearly three years after she had been first seen at hospital—i.e. four years after the onset of the disease—she began to lose weight, her liver became enlarged, and she died. Post-mortem examination had revealed a carcinoma, about the size of a sixpence, in the lesser curvature of the stomach, and secondary deposits in the liver. He thought it unlikely that the carcinoma had preceded the skin condition. It seemed much more probable that the skin condition had preceded the development of the carcinoma.

Pemphigus of the Conjunctiva.—GODFREY BAMBER, M.D.

F. N., male, aged 45. Running of the right eye began in September 1937. This was followed by dryness of the throat and nose-bleeding. Blisters then appeared inside the cheeks and a red patch was noticed on the scalp.

Condition on examination.—Over the right temporal region is a pea-sized bulla not surrounded by an inflammatory zone. On the crown is an area denuded of superficial epithelium and secondarily infected. The conjunctiva of both eyes is œdematous, but there is little inflammatory redness. The changes are more definite on the right side and synechiæ are seen connecting the conjunctiva of the bulb and the lower lid. Wassermann reaction negative.

Blood-count: R.B.C. 5,440,000; C.I. 0·94; W.B.C. 4,700 (polys. 67%; lymphos. 32%; large monos. 1%).

Discussion.—Dr. H. MACCORMAC said that this case raised a very interesting point. When pemphigus occurred on the conjunctiva, was it likely that the condition would progress to one of essential shrinkage, or was it possible to prevent this if the cutaneous part was arrested?

He believed that essential shrinkage as an isolated phenomenon rarely came under the notice of dermatologists, and that they were possibly not familiar with the clinical course which led up to this end-result.

Dr. H. SEMON said that some years ago, at the National Temperance Hospital, he had seen a case in which the essential shrinkage had gone on to almost complete blindness, and