ABC of Dermatology

P K BUXTON

THE SKIN AND SYSTEMIC DISEASE II

The gut and the skin

Early pyoderma gangrenosum.

Pyoderma gangrenosum.

Dermatitis herpetiformis.

Vasculitis of various kinds, periarteritis nodosa, connective tissue diseases such as scleroderma, and many metabolic diseases produce both cutaneous and gastrointestinal lesions. There are, however, some specific associations.

Dry skin, asteatosis, and itching, with superficial eczematous changes and a "crazy paving" pattern, occur in malabsorption and cachectic states. Increased pigmentation, brittle hair and nails may also be associated.

Pyoderma gangrenosum—An area of non-specific inflammation and pustules breaks down to form a necrotic ulcer with hypertrophic margins. There is an underlying vasculitis. There is a strong association with ulcerative colitis and also with Crohn's disease, rheumatoid arthritis, and other diseases with an altered immune response.

Dermatitis herpetiformis, which has already been discussed, is an intensely itching, chronic disorder with erythematous and blistering lesions on the trunk and limbs. It is more common in men than women. Most patients have a gluten sensitive enteropathy with some degree of villus atrophy. There is an associated risk of small bowel lymphoma.

Other conditions—Peutz-Jeghers syndrome, with intestinal polyposis, has already been mentioned, but there are other rare congenital disorders with connective tissue and vascular abnormalities that affect the gut, such as Ehlers-Danlos syndrome and pseudoxanthoma elasticum (arterial gastrointestinal bleeding), purpuric vasculitis (bleeding from gastrointestinal lesions), and neurofibromatosis (intestinal neurofibromas).

Diabetes and the skin

In diabetes the disturbances of carbohydrate-lipid metabolism, small blood vessel lesions, and neural involvement may be associated with skin lesions. The more common of these include the following.

Infection—Diabetics have an increased susceptibility to staphylococcal, coliform, and pseudomonal infection, and *Candida albicans* infection is also more common in diabetics.

Vascular lesions—"Diabetic dermopathy," due to a microangiopathy, consists of erythematous papules which slowly resolve to leave a scaling macule on the limbs. Atherosclerosis with impaired peripheral circulation is often associated with diabetes.

Ulceration due to neuropathy (trophic ulcers) or impaired blood supply may occur, particularly on the feet.

Specific skin lesions

Necrobiosis lipoidica—40-60% of patients with this condition may develop diabetes but it is not very common in diabetics (0.3%). As the name indicates, there is necrosis of the connective tissue with lymphocytic and granulomatous infiltrate. There is replacement of degenerating collagen fibres with lipid material. It usually occurs over the skin but may appear at any site.

Diabetic ulcer.

Necrobiosis lipoidica.

Granuloma annulare.

Granuloma annulare usually presents with localised papular lesions on the hands and feet but may occur elsewhere. The lesions may be partly or wholly annular and may be single or multiple. There is some degree of necrobiosis with histiocytes forming "palisades" as well as giant cells and lymphocytes. It is seen more commonly in women, usually those aged under 30. There is an association with insulin dependent diabetes. In itself it is a harmless and self limiting condition that slowly clears but may recur.

Porphyria.

Xanthomas.

Other metabolic diseases may cause skin change—for example, the xanthomas of hyperlipidaemia and photosensitivity with blistering in porphyria.

Other conditions

Polymorphic eruption.

Pemphigoid gestationis.

Pregnancy may be associated with pruritus, in which the skin appears normal in 15-20% of women. Less commonly a blistering disorder known as pemphigoid gestationis is seen. An itching polymorphic eruption of pregnancy, which is more common, may represent a less severe form. It usually occurs in the third trimester on the abdomen and then becomes widespread. There may be a postpartum exacerbation before it resolves.

Sarcoidosis of the skin appears in various forms—as papules, nodules, plaques, or large cyanotic lesions ("lupus pernio"). Erythema nodosum may be associated.

Thyroid disease

Hypothyroidism

Dry skin
Oedema of eyelids and hands
Absence of sweating
Coarse, thin hair—loss of pubic, axillary, and eyebrow hair
Pale "ivory" skin
Brittle poorly growing nails
Purpura, bruising, and telangiectasia

Hyperthyroidism

Soft, thickened skin
Pretibial myxoedema
Increased sweating (palms and soles)
Thinning of scalp
Diffuse pigmentation
Rapidly growing nails
Palmar erythema
Facial flushing

Thyroid disease is associated with changes in the skin, which may sometimes be the first clinical signs. There may be evidence of the effect of altered concentrations of thyroxine on the skin, with changes in texture and hair growth. Associated increases in thyroid stimulating hormone concentration may lead to pretibial myxoedema. In autoimmune thyroid disease vitiligo and other autoimmune conditions may be present.

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