Dermatology. **Lecture: 5**
Dr. Intisar Ahmed **Stage: 5**

The Skin in Systemic Disease

1.Skin changes seen in particular diseases or groups of diseases.

Skin and internal malignancy:

*The presence of some rare but important conditions should alert the clinician to the possibility of an underlying neoplasm.
*The onset of these conditions might predate or closely parallels to that of the associated tumour and may provide the first indication of tumour relapse.

1 .Acanthosis nigricans:

*Is a velvety thickening and pigmentation of the major flexures.
*Associated with:
-Adenocarcinoma within the abdominal cavity.
-Sign of Leser–Tr´elat, a sudden onset of multiple seborrhoeic keratoses or sudden increase in their size and number.
-Obesity.
-Metabolic syndrome.
-Drugs (nicotinic acid).

2 .Erythema gyratum repens:

*Waves of erythema covering the skin surface.
*Precede the onset of bronchial or oesophageal neoplasms.

3 .Acquired hypertrichosis lanuginosa:

*Excessive and widespread growth of fine lanugo hair.
*It is more common in women, when it is usually associated with colorectal, lung and breast malignancies.

4 .Necrolytic migratory erythema:

*Is a figurate erythema with a moving crusted edge.
*Associated with glucagon-secreting tumour of the pancreas.

5 .Bazex syndrome:

*Is a psoriasiform papulosquamous eruption of the fingers and toes, ears and nose, seen with some tumours of the upper respiratory tract.

6 .Dermatomyositis:

*Onset in adulthood should always prompt a search for an underlying malignancy (ovaries).

7 .Generalized pruritus: Lymphoma.
8 .Superficial thrombophlebitis: Carcinomas of the pancreas.
9 .Acquired ichthyosis: Hodgkin's lymphoma and other haematological neoplasms.
11 .Acute febrile neutrophilic dermatosis (Sweet's syndrome):
*Red oedematous plaques, fever, raised erythrocyte sedimentation rate (ESR) and a raised blood neutrophil count.
*The most important internal association is with myeloproliferative disorders.
12 .Paraneoplastic pemphigus: Lymphoproliferative malignancies.

Skin and diabetes mellitus:

1 .Necrobiosis lipoidica:
*Less than 3% of diabetics have necrobiosis, but 11–62% of patients with necrobiosis will have diabetes.
*The association is with both type 1 and type 2 diabetes.
*Appear as one or more discoloured areas on the fronts of the shins.
*Early violaceous, later shiny, atrophic and brown–red or slightly yellow.
*The underlying blood vessels are easily seen through the atrophic skin.
*No treatment is reliably helpful.
*Good control of the diabetes may help the necrobiosis.
*Topical corticosteroid applied to the edge of an enlarging lesion may halt its expansion.
2 .Granuloma annulare:
*The cause is not known;
*It now seems that there is no association between the common type and diabetes, association applies to a few adults with extensive superficial granuloma annulare,
*The common type lie over the knuckles and composed of dermal nodules fused into ring shape.
*Skin coloured, slightly pink or purple colour may be seen.
*Biopsy show palisading granuloma.
*Lesions go away over the course of a year or two.
*Stubborn ones respond to intralesional triamcinolone injections.
3 .Diabetic dermopathy:
*In about 50% of type I diabetic patients, multiple small (0.5–1 cm in diameter) slightly sunken brownish scars can be found on the limbs, over the shins.
*It is thought to be caused by vascular disease
4 .Candidal infections:
5 .Staphylococcal infections.
6 .Vitiligo.
7 .Eruptive xanthomas.

8 .Stiff thick skin (diabetic sclerodactyly or cheiroarthropathy):
*On the fingers and hands, demonstrated by the 'prayer sign' in which the fingers and palms cannot be opposed properly.
9 .Atherosclerosis with ischaemia or gangrene of feet.
10 .Neuropathic foot ulcers.

Skin in liver disease:

1 .Pruritus: This is related to obstructive jaundice and may precede it.
2 .Pigmentation: With bile pigments and sometimes melanin.
3 .Spider naevi: These are often multiple in chronic liver disease.
4 .Palmar erythema.
5 .White nails: These associate with hypoalbuminaemia.
6 .Lichen planus and cryoglobulinaemia: With hepatitis C infection.
7 .Polyarteritis nodosa: With hepatitis B infection.
8 .Porphyria cutanea tarda.
9 .Xanthomas: With primary biliary cirrhosis.
10 .Hair loss and generalized asteatotic eczema: May occur in alcoholics with cirrhosis who have become zinc deficient.

Skin in renal disease:

1 .Pruritus and generally dry skin.
2 .Pigmentation: A yellowish sallow colour and pallor from anaemia.
3 .Half-and-half nail: The proximal half is white and the distal half is pink or brownish.
4 .Perforating disorders: Small papules in which collagen or elastic fibres are being extruded through the epidermis.
5 .Pseudoporphyria.

Skin in malabsorption and malnutrition:

1.Protein malnutrition (kwashiorkor):
*Dry red-brown hair.
*Pigmented cracked skin.
2.Iron deficiency:
*Pallor.
*Itching.
*Diffuse hair loss.
*Koilonychia.
*Smooth tongue.

3.Vitamin A (retinol) deficiency:
*Dry skin.
*Follicular hyperkeratoses.
*Xerophthalmia.
4.Vitamin B2 (riboflavin) deficiency:
*Angular stomatitis.
*Smooth purple tongue.
*Seborrhoeic dermatitis-like eruption.
5.Vitamin C deficiency (scurvy):
*Skin haemorrhages especially around follicular keratoses containing coiled hairs.
*Bleeding gums.
*Oedematous 'woody' swellings of limbs in the elderly.
6.Zinc deficiency: Acrodermatitis enteropathica.
7.Vitamin B3 (niacin) deficiency: Pellagra.

Skin and thyroid disease:

	Hyperthyroidism	Hypothyroidism
Skin	*Smooth *Warm and moist due to increased sweating *Hyperpigmentation *Pruritus	*Coarse. *Cold and pale. *Yellow discoloration. *Easy bruising.
Hair	*Fine, thin *diffuse alopecia *Increased incidence of alopecia areata	*Dull, coarse, brittle. *Alopecia of the lateral third of the eyebrows. *Increased incidence of alopecia areata.
Nail	*Onycholysis *Koilonychia *Clubbing	*Thin, brittle, striated. *Slow growth.

2.individual skin conditions that can be associated with a wide range of internal disorders.

Generalized pruritus:

*Pruritus is a symptom with many causes, but not a disease in its own right. *Itchy patients fall into two groups: Dermatological and non-dermatological.
*Non-dermatological cause include:

1 .Liver disease.
2 .Chronic renal failure.
3 .Iron deficiency.
4.Polycythaemia.
5 .Thyroid disease.
6 .Diabetes.
7 .Internal malignancy.
8 .Neurological disease.
9 .The diffuse sclerotic form of scleroderma may start as itching associated with increasing pigmentation and early signs of sclerosis.
10 .The skin of the elderly may itch because it is too dry, or because it is being irritated.
11 .Pregnancy.
12 .Drugs.